# TECHNICAL GUIDE 50Hz

YORK®
Heating and Air Conditioning

PREDATOR™

## SINGLE PACKAGE AIR CONDITIONERS AND SINGLE PACKAGE GAS/ELECTRIC UNITS

DM090, 120, 150
7-1/2, 10, 12-1/2 NOMINAL TONS
9.0 - 10.0 EER

380/415-3-50

ISO 9000 REGISTRATION

## DESCRIPTION

YORK® Predator® units are convertible single packages with a common footprint cabinet and common roof curb for all 7-1/2 through 12-1/2 ton models. All units have two compressors with independent refrigeration circuits. The units were designed for light commercial applications and can be easily installed on a roof curb, slab, roof jack, or frame.

All Predator® units are self-contained and assembled on rigid full perimeter base rails allowing for 3-way forklift access and overhead rigging. Every unit is completely charged, wired, piped, and tested at the factory to provide a quick and easy field installation.

All units are convertible between side and down airflow. A single economizer design is used on side and down discharge applications, as well as all tonnage sizes.

Predator® units are available in the following configurations: cooling only, cooling with electric heat, and cooling with gas heat. Electric heaters are available as factory-installed options or as field-installed accessories.

FOR DISTRIBUTION USE ONLY - NOT TO BE USED AT POINT OF RETAIL SALE

# TABLE OF CONTENTS

**DESCRIPTION . . . . . 1**

**FEATURES . . . . . 3**

**FACTORY INSTALLED OPTIONS . . . . . 5**

**FIELD INSTALLED ACCESSORIES . . . . . 6**

**NOMENCLATURE . . . . . 8**

## LIST OF FIGURES

Fig. # Pg. #

1 PREDATOR® COMPONENT LOCATION . . . . . 3
2 UNIT 4 POINT LOAD . . . . . 31
3 UNIT CENTER OF GRAVITY . . . . . 31
4 UNIT 6 POINT LOAD . . . . . 31
5 UNIT DIMENSIONS . . . . . 32
6 PREDATOR® ROOF CURB DIMENSIONS . . . . . 33
7 SUNLINE™ TO PREDATOR® TRANSITION ROOF CURB . . . . . 33
8 BOTTOM DUCT OPENINGS (FROM ABOVE) . . . . . 34
9 REAR DUCT DIMENSIONS . . . . . 34
10 COOLING UNIT WITH GAS HEAT WIRING DIAGRAM . . . . . 35
11 COOLING UNIT WITH/WITHOUT ELECTRIC HEAT WIRING DIAGRAM . . . . . 36

## LIST OF TABLES

Tbl. # Pg. #

1 PHYSICAL DATA . . . . . 12
2 CAPACITY RATINGS IMPERIAL . . . . . 13
3 CAPACITY RATINGS METRIC . . . . . 13
4 COOLING CAPACITY 7-1/2 TON UNIT - IMPERIAL . . 14
5 COOLING CAPACITY 26.4 KW UNIT - METRIC . . . . . 15
6 COOLING CAPACITY 10 TON UNIT - IMPERIAL . . . . 16
7 COOLING CAPACITY 35.1 KW UNIT - METRIC . . . . . 17
8 COOLING CAPACITY 12-1/2 TON UNIT - IMPERIAL . 18
9 COOLING CAPACITY 43.9 KW UNIT - METRIC . . . . . 19
10 ELECTRICAL DATA 7-1/2 TON . . . . . 20
11 ELECTRICAL DATA 10 TON . . . . . 20
12 ELECTRICAL DATA 12-1/2 TON . . . . . 20
13 BLOWER PERFORMANCE 7-1/2 TON STANDARD MOTOR - SIDE DUCT (IMPERIAL) . . . . . 21
14 BLOWER PERFORMANCE 7-1/2 TON STANDARD MOTOR - SIDE DUCT (METRIC) . . . . . 21
15 BLOWER PERFORMANCE 7-1/2 TON OPTIONAL MOTOR - SIDE DUCT (IMPERIAL) . . . . . 21

Tbl. # Pg. #

16 BLOWER PERFORMANCE 7-1/2 TON OPTIONAL MOTOR - SIDE DUCT (METRIC) . . . . . 22
17 BLOWER PERFORMANCE 10 TON STANDARD MOTOR - SIDE DUCT (IMPERIAL) . . . . . 22
18 BLOWER PERFORMANCE 10 TON STANDARD MOTOR - SIDE DUCT (METRIC) . . . . . 22
19 BLOWER PERFORMANCE 10 TON OPTIONAL MOTOR - SIDE DUCT (IMPERIAL) . . . . . 23
20 BLOWER PERFORMANCE 10 TON OPTIONAL MOTOR - SIDE DUCT (METRIC) . . . . . 23
21 BLOWER PERFORMANCE 12-1/2 TON - SIDE DUCT (IMPERIAL) . . . . . 24
22 BLOWER PERFORMANCE 12-1/2 TON - SIDE DUCT (METRIC) . . . . . 24
23 BLOWER PERFORMANCE 7-1/2 TON STANDARD MOTOR - DOWNSHOT (IMPERIAL) . . . . . 25
24 BLOWER PERFORMANCE 7-1/2 TON STANDARD MOTOR - DOWNSHOT (METRIC) . . . . . 25
25 BLOWER PERFORMANCE 7-1/2 TON OPTIONAL MOTOR - DOWNSHOT (IMPERIAL) . . . . . 25
26 BLOWER PERFORMANCE 7-1/2 TON OPTIONAL MOTOR - DOWNSHOT (METRIC) . . . . . 26
27 BLOWER PERFORMANCE 10 TON STANDARD MOTOR - DOWNSHOT (IMPERIAL) . . . . . 26
28 BLOWER PERFORMANCE 10 TON STANDARD MOTOR - DOWNSHOT (METRIC) . . . . . 26
29 BLOWER PERFORMANCE 10 TON OPTIONAL MOTOR - DOWNSHOT (IMPERIAL) . . . . . 27
30 BLOWER PERFORMANCE 10 TON OPTIONAL MOTOR - DOWNSHOT (METRIC) . . . . . 27
31 BLOWER PERFORMANCE 12-1/2 TON - DOWNSHOT (IMPERIAL) . . . . . 28
32 BLOWER PERFORMANCE 12-1/2 TON - DOWNSHOT (METRIC) . . . . . 28
33 ADDITIONAL STATIC RESISTANCE (IMPERIAL) . . . 29
34 ADDITIONAL STATIC RESISTANCE (METRIC) . . . . 30
35 ELECTRIC HEAT MINIMUM SUPPLY AIR - IMPERIAL . . . . . 30
36 ELECTRIC HEAT MINIMUM SUPPLY AIR - METRIC . . . . . 30
37 INDOOR BLOWER SPECIFICATIONS . . . . . 31
38 4 POINT LOAD WEIGHT . . . . . 31
39 6 POINT LOAD WEIGHT . . . . . 31
40 UNIT WEIGHT . . . . . 31
41 UNIT CLEARANCES . . . . . 32

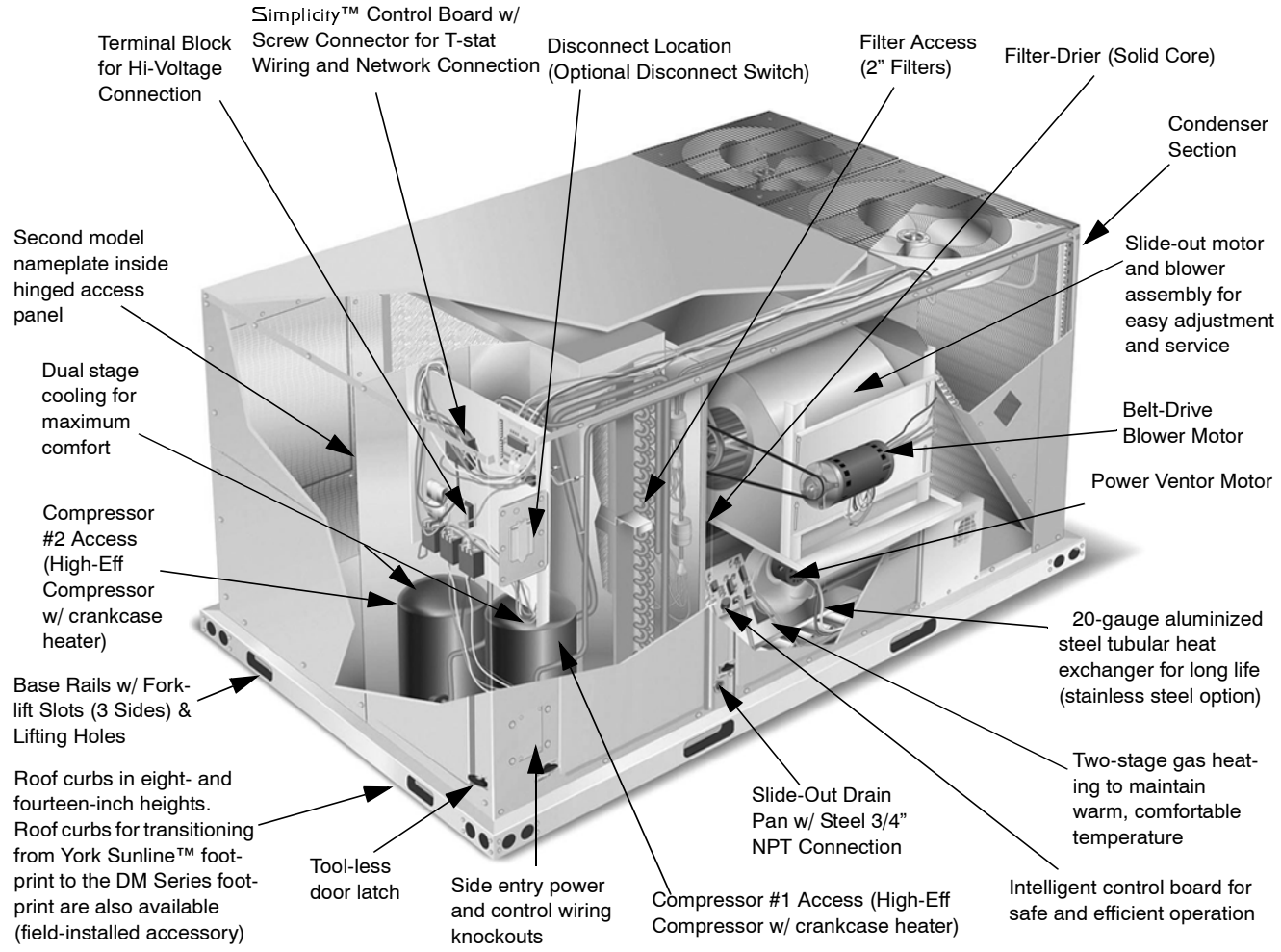

Terminal Block for Hi-Voltage Connection
Simplicity™ Control Board w/ Screw Connector for T-stat Wiring and Network Connection
Disconnect Location (Optional Disconnect Switch)
Filter Access (2" Filters)
Filter-Drier (Solid Core)
Condenser Section
Second model nameplate inside hinged access panel
Slide-out motor and blower assembly for easy adjustment and service
Dual stage cooling for maximum comfort
Belt-Drive Blower Motor
Power Ventor Motor
Compressor #2 Access (High-Eff Compressor w/ crankcase heater)
20-gauge aluminized steel tubular heat exchanger for long life (stainless steel option)
Base Rails w/ Fork-lift Slots (3 Sides) & Lifting Holes
Two-stage gas heating to maintain warm, comfortable temperature
Roof curbs in eight- and fourteen-inch heights. Roof curbs for transitioning from York Sunline™ footprint to the DM Series footprint are also available (field-installed accessory)
Slide-Out Drain Pan w/ Steel 3/4" NPT Connection
Tool-less door latch
Side entry power and control wiring knockouts
Compressor #1 Access (High-Eff Compressor w/ crankcase heater)
Intelligent control board for safe and efficient operation

**FIGURE 1 - PREDATOR® COMPONENT LOCATION**

## FEATURES

- **Standard Efficiency**– All standard efficiency units have a minimum EER of 9.0 (2.64 CoP). Gas/electric units have electronic spark ignition and power vented combustion with steady state efficiencies of 80%.
- **Service Friendly** – The Predator® incorporates a number of enhancements which improve serviceability.

  The motor and blower slide out of the unit as a common assembly. This facilitates greater access to all the indoor airflow components, thus simplifying maintenance and adjustment.

  Service time is reduced through the use of hinged, tool-less panels. Such panels provide access to frequently inspected components and areas, including the control box, compressors, filters, indoor motor & blower, and the heating section. The panels are screwed in place at the factory to prevent access by children or other unauthorized persons. It is recommended that the panels be secured with screws once service is complete.

  Service windows have been placed in both condenser section walls. Rotation of the cover allows easy access to the condenser coils for cleaning or inspection.

  Both the unit control board and ignition control board utilize flash codes to aid in diagnosis of unit malfunctions. Unique alarm codes quickly identify the source of the unit alarm.

  All units use the same standard filter size. This standardization removes any confusion on which filter sizes are needed for replacement.

  The non-corrosive drain pan slides out of the unit to permit easy cleaning. The drain pan is accessed by removing the drain pan cover plate on the rear of the unit. Once the plate is removed, the drain pan slides out through the rear of the unit.

  All Predator® units have a second model nameplate located inside the control access door. This is to prevent deterioration of the nameplate through weathering.
- **Environmentally Aware** – For improved Indoor Air Quality, foil faced insulation is used exclusively throughout the units.

- **Balanced Heating** – The Predator® offers "Ultimate Heating Comfort" with a balance between 1st and 2nd stage gas heating. The 1st stage of a gas heat Predator® unit provides 60% of the heating capacity. Balanced heating allows the unit to better maintain desired temperatures.
- **Convertible Airflow Design** – The side duct openings are covered when they leave the factory. If a side supply/return is desired, the installer simply removes the two side duct covers from the outside of the unit and installs them over the down shot openings. No panel cutting is required. Convertible airflow design allows maximum field flexibility and minimum inventory.
- **System Protection** - Suction line freezestats are supplied on all units to protect against loss of charge and coil frosting when the economizer operates at low outdoor air temperatures while the compressors are running. Every unit has solid-core liquid line filter-driers and high and low-pressure switches. Internal compressor protection is standard on all compressors. Crankcase heaters are standard on reciprocating compressors. Scroll compressors do not require crankcase heaters. Phase Monitors are standard on units with scroll compressors. This accessory monitors the incoming power to the unit and protects the unit from phase loss and reversed phase rotation.
- **Advanced Controls** - Simplicity™ control boards have standardized a number of features previously available only as options or by utilizing additional controls.
    - **Low Ambient** - An integrated low-ambient control allows all units to operate in the cooling mode down to 0°F (-17.8°C) outdoor ambient without additional assistance. Optionally, the control board can be programmed to lockout the compressors when the outdoor air temperature is low or when free cooling is available.
    - **Anti-Short Cycle Protection** - To aid compressor life, an anti-short cycle delay is incorporated into the standard controls. Compressor reliability is further ensured by programmable minimum run times. For testing, the anti-short cycle delay can be temporarily overridden with the push of a button.
    - **Fan Delays** - Fan on and fan off delays are fully programmable. Furthermore, the heating and cooling fan delay times are independent of one another. All units are programmed with default values based upon their configuration of cooling and heat.
    - **Safety Monitoring** - The control board monitors the high and low-pressure switches, the freezestats, the gas valve, if applicable, and the temperature limit switch on gas and electric heat units. The unit control board will alarm on ignition failures, compressor lockouts and repeated limit switch trips.
    - **Nuisance Trip Protection and Strikes** - To prevent nuisance trouble calls, the control board uses a "three times, you're out" philosophy. The high and low-pressure switches and the freezestats must trip three times within two hours before the unit control board will lock out the associated compressor.
    - **On Board Diagnostics** - Each alarm will energize a trouble light on the thermostat, if so equipped, and flash an alarm code on the control board LED. Each high and low-pressure switch alarm as well as each freezestat alarm has its own flash code. The control board saves the five most recent alarms in memory, and these alarms can be reviewed at any time. Alarms and programmed values are retained through the loss of power.
- **Reliable** – From the beginning – All units undergo computer automated testing before they leave the factory. Units are tested for refrigerant charge and pressure, unit amperage, and 100% functionality. For the long term – All Predator® units are painted with a long lasting, powder paint that stands up over the life of the unit. The paint used has been proven by a 750 hour salt spray test.
- **Flexible Placement** – All models and configurations share the same cabinet/footprint and thus the same roof curb. You have the flexibility to set one curb and choose the correct tonnage size and heating option after the internal loads have been determined.

  To further simplify planning and installation, Predator® cabinets are designed to fit your roof. With the optional roof curb, the unit ductwork is designed to fit around 24" (610 mm) on-center joists or between 48" (1219 mm) on-center joists.

  The drain pan can be rotated to drain to either the front or the rear of the unit. Additionally, the drain pan can be piped to drain through the roof curb. As it is sometimes difficult to have a level installation, the drain pan features a generous slope to ensure proper drainage.
- **Full Perimeter Base Rails** – The permanently attached base rails provide a solid foundation for the entire unit and protect the unit during shipment. The rails offer forklift access from 3 sides, and rigging holes are available so that an overhead crane can be used to place the units on a roof.
- **Easy Installation** – Gas and electric utility knockouts are supplied in the unit underside as well as the side of the unit. A clearly identified location is provided to mount a field supplied electrical disconnect switch. Utility connections can be made quickly and with a minimum amount of field labor.

  All units are shipped with 2" (51 mm) filters installed.

- **Wide Range of Indoor Airflows** – All indoor fan motors are belt-drive type providing maximum flexibility to handle most airflow requirements. For high static applications, factory installed alternate indoor fan motors are available. With the optional indoor fan motor, all units can supply nominal airflow at a minimum of 1.5" (375 Pa) ESP.

## FACTORY INSTALLED OPTIONS

YORK® offers several equipment options factory installed, for the Predator® line.

- **Downflow Economizer** - **(With barometric relief)** - The economizer is provided with a single enthalpy input. The economizer is 2% low leakage type, and is shipped installed and wired. The installer needs only to assemble and mount the outdoor air hood (Provided). The economizer has spring return, fully modulating damper actuators and is capable of introducing up to 100% outdoor air. As the outdoor air intake dampers open, the return air dampers close. The changeover from mechanical refrigeration to economizer operation is regulated by the standard single enthalpy input. There is an optional input dual dry bulb available. To meet regulated air standards, the economizer control accepts an optional $CO_2$ input for demand ventilation. With single enthalpy input, the economizer control monitors outdoor air. The dual enthalpy kit provides a second input used to monitor the return air. With a dual input kit installed, the economizer control compares the values of the two enthalpy or temperature inputs and positions the dampers to provide the maximum efficiency possible.
- **Horizontal Economizer** - **(Without barometric relief)** - All features as the downflow economizer exist except you must order the barometric relief separately. **You must order a 1EH0408 if you are installing a power exhaust. You can order a 1RD0411 Barometric Relief for horizontal flow economizers only.**
- **BAS Ready Economizer -(With barometric relief)** - The economizer is provided with a Belimo actuator that requires a 0-10V DC input from an external source (i.e., field installed building automation system controller). Power exhaust options are available. The economizer is 2% low leakage type with spring return and fully modulating dampers capable of introducing up to 100% outside air. Also include 2" (51 mm) pleated filters.
- **Power Exhaust (Downflow only)** - This accessory installs in the unit with a down flow economizer.
- **Motorized Outdoor Air Damper** - The motorized outdoor air damper includes a slide-in/plug-in damper assembly with an outdoor air hood and filters. The outdoor air dampers open to the preset position when the indoor fan motor is energized. The damper has a range of 0% to 100% outdoor air entry. Factory installed option or field installed accessory.
- **Alternate Indoor Blower Motor** - For applications with high static restrictions, units are offered with optional indoor motors that provide higher static output and/or higher airflow, depending upon the installer's needs.
- **Aluminized Steel Gas Heat Exchanger** - For applications in non-corrosive environments.
- **Stainless Steel Gas Heat Exchanger** - For applications in corrosive environments, this option provides a full stainless steel heat exchanger assembly.
- **Electric Heaters** - The electric heaters range from 9kW to 54kW and are available in all the voltage options of the base units. All heaters are dual staged. All heaters are intended for single point power supply.
- **Disconnect Switch** - For gas heat units and cooling units with electric heat, a HACR breaker sized to the unit is provided. For cooling only units, a switch sized to the largest electric heat available for the particular unit is provided. Factory installed option only.
- **Smoke Detectors** - The smoke detectors stop operation of the unit by interrupting power to the control board if smoke is detected within the air compartment. Available for both the supply and/or return air.
- **Phase Monitors** - Designed to prevent unit damage. The phase monitor will shut the unit down in an out-of phase condition. **(Standard on units with Scroll Compressors.)**
- **Coil Guard** - Customers can purchase a coil guard kit to protect the condenser coil from damage. Additionally, this kit stops animals and foreign objects from entering the space between the inner condenser coil and the main cabinet. This is not a hail guard kit.
- **Dirty Filter Switch** - This kit includes a differential pressure switch that energizes the fault light on the unit thermostat, indicating that there is an abnormally high pressure drop across the filters. Factory installed option or field installed accessory.
- **Technicoat Condenser Coils** - The condenser coils are coated with a phenolic coating for protection against corrosion due to harsh environments.
- **Technicoat Evaporator Coil** - The evaporator coils are coated with a phenolic coating for protection against corrosion due to harsh environments.
- **Novar® BAS Control** - The Novar® ETC-3 building automation system controller is factory installed. Incudes supply air sensor, return air sensor, dirty filter indicator switch, and air proving switch.
- **Johnson Controls BAS Control** - The Johnson Control YK-UNT-1126 building automation system controller is factory installed. Includes supply air sensor, return air sensor, dirty filter indicator switch, and air proving switch.

- **CPC BAS Control** - The Computer Process Controls Model 810-3060 ARTC Advanced Rooftop building automation system controller is factory installed. Includes supply air sensor, return air sensor, dirty filter indicator switch, and air proving switch.
- **Honeywell BAS Control** - The Honeywell W7750C building automation system controller is factory installed. Includes air supply sensor, return air sensor, dirty filter indicator switch, and air proving switch.

## FIELD INSTALLED ACCESSORIES

YORK® offers several equipment accessories for field installation, for the Predator® line.

- **Downflow Economizer** - **(With barometric relief)** - The economizer is provided with a single enthalpy input. The economizer is 2% low leakage type. The economizer has spring return, fully modulating damper actuators and is capable of introducing up to 100% outdoor air. As the outdoor air intake dampers open, the return air dampers close. The changeover from mechanical refrigeration to economizer operation is regulated by the standard single enthalpy input. There is an optional input dual dry bulb available. To meet regulated air standards, the economizer control accepts an optional $CO_2$ input for demand ventilation. With single enthalpy input, the economizer control monitors outdoor air. The dual enthalpy kit provides a second input used to monitor the return air. With a dual input kit installed, the economizer control compares the values of the two enthalpy or temperature inputs and positions the dampers to provide the maximum efficiency possible
- **Horizontal Economizer** - **(Without barometric relief)** - All features as the downflow economizer exist except you must order the barometric relief separately. **You must order a 1EH0408 if you are installing a power exhaust. You can order a 1RD0411 Barometric Relief for horizontal flow economizer.**
- **Dual Enthalpy Control, Accessory** - This kit contains the required components to convert a single enthalpy economizer to dual enthalpy.
- **Barometric Relief Damper** - Zero to 100% capacity barometric relief dampers for use with horizontal flow, or field installed slab economizers.
- **Power Exhaust** - This accessory installs in the unit with a down flow economizer. Power exhaust plugs into the connector in the unit bulkhead. **You must purchase 1EH0408 barometric relief/power exhaust hood when applying to a horizontal flow application.**
- **Manual Outdoor Air Damper** - Like the motorized outdoor air damper, each manual outdoor air damper includes a slide-in damper assembly with an outdoor air hood and filters. Customers have a choice of dampers with ranges of 0% to 100% or 0% to 35% outdoor air entry.
- **Motorized Outdoor Air Damper** - The motorized outdoor air damper includes a slide-in/plug-in damper assembly with an outdoor air hood and filters. The outdoor air dampers open to the preset position when the indoor fan motor is energized. The damper has a range of 0% to 100% outdoor air entry. Factory installed option or field installed accessory.
- **Smoke Detectors** - The smoke detectors stop operation of the unit by interrupting power to the control board if smoke is detected within the air compartment.
- **$CO_2$ Sensor** - Senses $CO_2$ levels and automatically overrides the economizer when levels rise above the preset limits.
- **Dirty Filter Switch** - This kit includes a differential pressure switch that energizes the fault light on the unit thermostat, indicating that there is an abnormally high pressure drop across the filters.
- **Coil Guard -** Field installed decorative wire coil guard.
- **Hail Guard** - This kit includes a sloped hood which installs over the outside condenser coil and prevents damage to the coil fins from hail strikes. Field installed accessory only.
- **Flue Exhaust Extension Kit** - In locations with wind or weather conditions which may interfere with proper exhausting of furnace combustion products, this kit can be installed to prevent the flue exhaust from entering nearby fresh air intakes.
- **-60°F Gas Heat Kit** - For installations which require gas heat units to perform in low ambient temperatures, a gas section heating kit is available. This kit provides electric heat in the gas heat controls section to ensure the gas valve and controls will continue to function properly at extremely low temperatures.
- **Gas Heat High Altitude Kit** - This kit converts a gas heat unit to operate at high altitudes, 2,000 to 6,000 feet. Conversion kits are available for natural gas and propane.
- **Gas Heat Propane Conversion Kit** - This kit converts a gas-fired heater from natural gas to propane. It contains the main burner orifices and gas valve replacement springs.
- **Gas Piping Kit** - Contains pipe nipples, fittings and gas cock required for gas supply connection with external shut off.
- **Electric Heaters** - The electric heaters range from 9 kW to 54kW and are available in all the voltage options of the base units. All heaters are dual staged. Cooling units include an adapter panel for easy installation of the electric heaters. Necessary hardware and connectors are included with the heaters. All heaters are intended for single point power supply.

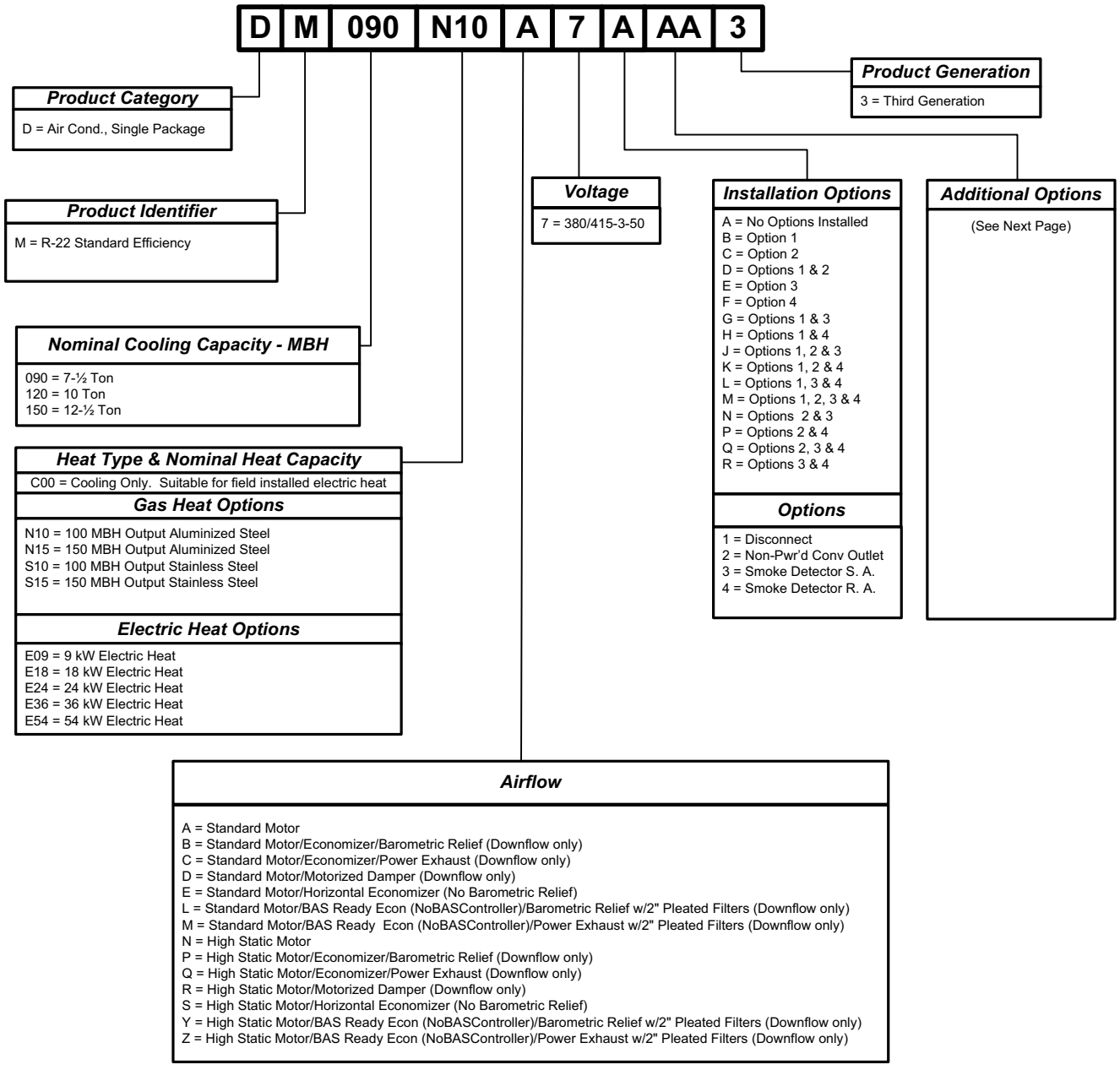
- **Low Limit** / **Compressor Lockout Kit**

    1. **Compressor Lockout (CLO):** To prevent mechanical (compressorized) operation of the unit during cold outdoor conditions where there is a risk of returning liquid refrigerant back to the compressors.
    2. **Low Limit Control (LLC):** To prevent the supply air from dropping below a specified setpoint by utilizing the units first stage heating means when there is a demand for cooling during cold outside conditions.

- **Metal Frame Filter Kit -** Metal frame with polyester filter medium.
- **Permanent Filters** - Permanent filters are available.
- **Roof Curbs** - The roof curbs have insulated decks and are shipped disassembled The roof curbs are available in 8” (203 mm) and 14” (356 mm) heights. For applications with security concerns, burglar bars are available for the duct openings of the roof curbs.
- **Roof Curb Transition** - Single Piece Adapter (10” (254 mm) High) - Roof curbs for transitioning from Sunline™ units to Predator® Magnum. Fits 7.5 to 12.5 Sunline™ roof curbs only.
- **Burglar Bars** - Mount in the supply and return openings to prevent entry into the duct work.
- **Thermostat** - The units are designed to operate with 24-volt electronic and electro-mechanical thermostats. All units (with or without an economizer) operate with two-stage heat/two-stage cool or two-stage cooling only thermostats, depending upon unit configuration.

## NOMENCLATURE

### 7½ - 12½ Ton Predator Model Number Nomenclature


D M 090 N10 A 7 A AA 3
Product Category
D = Air Cond., Single Package
Product Identifier
M = R-22 Standard Efficiency
Nominal Cooling Capacity - MBH
090 = 7-½ Ton
120 = 10 Ton
150 = 12-½ Ton
Heat Type & Nominal Heat Capacity
C00 = Cooling Only. Suitable for field installed electric heat
Gas Heat Options
N10 = 100 MBH Output Aluminized Steel
N15 = 150 MBH Output Aluminized Steel
S10 = 100 MBH Output Stainless Steel
S15 = 150 MBH Output Stainless Steel
Electric Heat Options
E09 = 9 kW Electric Heat
E18 = 18 kW Electric Heat
E24 = 24 kW Electric Heat
E36 = 36 kW Electric Heat
E54 = 54 kW Electric Heat
Airflow
A = Standard Motor
B = Standard Motor/Economizer/Barometric Relief (Downflow only)
C = Standard Motor/Economizer/Power Exhaust (Downflow only)
D = Standard Motor/Motorized Damper (Downflow only)
E = Standard Motor/Horizontal Economizer (No Barometric Relief)
L = Standard Motor/BAS Ready Econ (NoBASController)/Barometric Relief w/2" Pleated Filters (Downflow only)
M = Standard Motor/BAS Ready Econ (NoBASController)/Power Exhaust w/2" Pleated Filters (Downflow only)
N = High Static Motor
P = High Static Motor/Economizer/Barometric Relief (Downflow only)
Q = High Static Motor/Economizer/Power Exhaust (Downflow only)
R = High Static Motor/Motorized Damper (Downflow only)
S = High Static Motor/Horizontal Economizer (No Barometric Relief)
Y = High Static Motor/BAS Ready Econ (NoBASController)/Barometric Relief w/2" Pleated Filters (Downflow only)
Z = High Static Motor/BAS Ready Econ (NoBASController)/Power Exhaust w/2" Pleated Filters (Downflow only)
Voltage
7 = 380/415-3-50
Installation Options
A = No Options Installed
B = Option 1
C = Option 2
D = Options 1 & 2
E = Option 3
F = Option 4
G = Options 1 & 3
H = Options 1 & 4
J = Options 1, 2 & 3
K = Options 1, 2 & 4
L = Options 1, 3 & 4
M = Options 1, 2, 3 & 4
N = Options 2 & 3
P = Options 2 & 4
Q = Options 2, 3 & 4
R = Options 3 & 4
Options
1 = Disconnect
2 = Non-Pwr'd Conv Outlet
3 = Smoke Detector S. A.
4 = Smoke Detector R. A.
Additional Options
(See Next Page)
Product Generation
3 = Third Generation

**NOMENCLATURE ADDITIONAL OPTIONS:ì**

| | |
|---|---|
| AA | None |
| AB | Phase Monitor |
| AC | Coil Guard |
| AD | Dirty Filter Switch |
| AE | Phase Monitor & Coil Guard |
| AF | Phase Monitor & Dirty Filter Switch |
| AG | Coil Guard & Dirty Filter Switch |
| AH | Phase Monitor, Coil Guard, & Dirty Filter Switch |
| CA | CPC Controller with Dirty Filter Switch & Air Proving Switch |
| CB | CPC Controller, DFS, APS & Phase Monitor |
| CC | CPC Controller, DFS, APS & Coil Guard |
| CD | CPC Controller, DFS, APS, Phase Monitor, & Coil Guard |
| CE | CPC Controller, DFS, APS & Technicoat Cond. Coil |
| CF | CPC Controller, DFS, APS, Technicoat Cond. Coil, & Phase Monitor |
| CG | CPC Controller, DFS, APS, Technicoat Cond. Coil, & Coil Guard |
| CH | CPC Controller, DFS, APS, Technicoat Cond. Coil, Phase Monitor, & Coil Guard |
| CJ | CPC Controller, DFS, APS & Technicoat Evap. Coil |
| CK | CPC Controller, DFS, APS, Technicoat Evap. Coil, & Phase Monitor |
| CL | CPC Controller, DFS, APS, Technicoat Evap. Coil, & Coil Guard |
| CM | CPC Controller, DFS, APS, Technicoat Evap. Coil, Phase Monitor, & Coil Guard |
| CN | CPC Controller, DFS, APS & Technicoat Evap. & Cond Coils |
| CP | CPC Controller, DFS, APS, Technicoat Evap. & Cond Coils, & Phase Monitor |
| CQ | CPC Controller, DFS, APS, Technicoat Evap. & Cond Coils, & Coil Guard |
| CR | CPC Controller, DFS, APS, Technicoat  Cond Coils, Phase Monitor, &  2” Pleated Filters |
| CV | CPC Controller, DFS, APS,  &  2” Pleated Filters |
| CX | CPC Controller, DFS, APS, Technicoat Evap. & Cond Coils, Phase Monitor, Coil Guard |
| HA | Honeywell Excel 10 Controller with Dirty Filter Switch & Air Proving Switch |
| HB | Honeywell Excel 10 Controller, DFS, APS & Phase Monitor |
| HC | Honeywell Excel 10 Controller, DFS, APS & Coil Guard |
| HD | Honeywell Excel 10 Controller, DFS, APS, Phase Monitor, & Coil Guard |
| HE | Honeywell Excel 10 Controller, DFS, APS & Technicoat Cond. Coil |
| HF | Honeywell Excel 10 Controller, DFS, APS, Technicoat Cond. Coil, & Phase Monitor |
| HG | Honeywell Excel 10 Controller, DFS, APS, Technicoat Cond. Coil, & Coil Guard |
| HH | Honeywell Excel 10 Controller, DFS, APS, Technicoat Cond. Coil, Phase Monitor, & Coil Guard |
| HJ | Honeywell Excel 10 Controller, DFS, APS & Technicoat Evap. Coil |
| HK | Honeywell Excel 10 Controller, DFS, APS, Technicoat Evap. Coil, & Phase Monitor |
| HL | Honeywell Excel 10 Controller, DFS, APS, Technicoat Evap. Coil, & Coil Guard |
| HM | Honeywell Excel 10 Controller, DFS, APS, Technicoat Evap. Coil, Phase Monitor, & Coil Guard |
| HN | Honeywell Excel 10 Controller, DFS, APS & Technicoat Evap. & Cond Coils |

| | |
|---|---|
| HP | Honeywell Excel 10 Controller, DFS, APS, Technicoat Evap. & Cond Coils, & Phase Monitor |
| HQ | Honeywell Excel 10 Controller, DFS, APS, Technicoat Evap. & Cond Coils, & Coil Guard |
| HR | Honeywell Excel 10 Controller, DFS, APS, Technicoat Evap. & Cond Coils, Phase Monitor, & Coil Guard |
| JA | Johnson UNT Controller with Dirty Filter Switch & Air Proving Switch |
| JB | Johnson UNT Controller, DFS, APS & Phase Monitor |
| JC | Johnson UNT Controller, DFS, APS & Coil Guard |
| JD | Johnson UNT Controller, DFS, APS, Phase Monitor, & Coil Guard |
| JE | Johnson UNT Controller, DFS, APS & Technicoat Cond. Coil |
| JF | Johnson UNT Controller, DFS, APS, Technicoat Cond. Coil, & Phase Monitor |
| JG | Johnson UNT Controller, DFS, APS, Technicoat Cond. Coil, & Coil Guard |
| JH | Johnson UNT Controller, DFS, APS, Technicoat Cond. Coil, Phase Monitor, & Coil Guard |
| JJ | Johnson UNT Controller, DFS, APS & Technicoat Evap. Coil |
| JK | Johnson UNT Controller, DFS, APS, Technicoat Evap. Coil, & Phase Monitor |
| JL | Johnson UNT Controller, DFS, APS, Technicoat Evap. Coil, & Coil Guard |
| JM | Johnson UNT Controller, DFS, APS, Technicoat Evap. Coil, Phase Monitor, & Coil Guard |
| JN | Johnson UNT Controller, DFS, APS & Technicoat Evap. & Cond Coils |
| JP | Johnson UNT Controller, DFS, APS, Technicoat Evap. & Cond Coils, & Phase Monitor |
| JQ | Johnson UNT Controller, DFS, APS, Technicoat Evap. & Cond Coils, & Coil Guard |
| JR | Johnson UNT Controller, DFS, APS, Technicoat Evap. & Cond Coils, Phase Monitor, & Coil Guard |
| NA | Novar ETC-3 Controller with Dirty Filter Switch & Air Proving Switch |
| NB | Novar ETC-3 Controller, DFS, APS & Phase Monitor |
| NC | Novar ETC-3 Controller, DFS, APS & Coil Guard |
| ND | Novar ETC-3 Controller, DFS, APS, Phase Monitor, & Coil Guard |
| NE | Novar ETC-3 Controller, DFS, APS & Technicoat Cond. Coil |
| NF | Novar ETC-3 Controller, DFS, APS, Technicoat Cond. Coil, & Phase Monitor |
| NG | Novar ETC-3 Controller, DFS, APS, Technicoat Cond. Coil, & Coil Guard |
| NH | Novar ETC-3 Controller, DFS, APS, Technicoat Cond. Coil, Phase Monitor, & Coil Guard |
| NJ | Novar ETC-3 Controller, DFS, APS & Technicoat Evap. Coil |
| NK | Novar ETC-3 Controller, DFS, APS, Technicoat Evap. Coil, & Phase Monitor |
| NL | Novar ETC-3 Controller, DFS, APS, Technicoat Evap. Coil, & Coil Guard |
| NM | Novar ETC-3 Controller, DFS, APS, Technicoat Evap. Coil, Phase Monitor, & Coil Guard |
| NN | Novar ETC-3 Controller, DFS, APS & Technicoat Evap. & Cond Coils |
| NP | Novar ETC-3 Controller, DFS, APS, Technicoat Evap. & Cond Coils, & Phase Monitor |
| NQ | Novar ETC-3 Controller, DFS, APS, Technicoat Evap. & Cond Coils, & Coil Guard |
| NR | Novar ETC-3 Controller, DFS, APS, Technicoat Evap. & Cond Coils, Phase Monitor, & Coil Guard |
| TA | Technicoat Condenser Coil |
| TB | Technicoat Condenser Coil & Phase Monitor |
| TC | Technicoat Condenser Coil & Coil Guard |
| TD | Technicoat Condenser Coil & Dirty Filter Switch |
| TE | Technicoat Condenser Coil, Phase Monitor, & Coil Guard |
| TF | Technicoat Condenser Coil, Phase Monitor, & Dirty Filter Switch |

| | |
|---|---|
| TG | Technicoat Condenser Coil, Coil Guard, & Dirty Filter Switch |
| TH | Technicoat Condenser Coil, Phase Monitor, Coil Guard, & Dirty Filter Switch |
| TJ | Technicoat Evaporator Coil |
| TK | Technicoat Evaporator Coil & Phase Monitor |
| TL | Technicoat Evaporator Coil & Coil Guard |
| TM | Technicoat Evaporator Coil & Dirty Filter Switch |
| TN | Technicoat Evaporator Coil, Phase Monitor, & Coil Guard |
| TP | Technicoat Evaporator Coil, Phase Monitor, & Dirty Filter Switch |
| TQ | Technicoat Evaporator Coil, Coil Guard, & Dirty Filter Switch |
| TR | Technicoat Evaporator Coil, Phase Monitor, Coil Guard, & Dirty Filter Switch |
| TS | Technicoat Evaporator & Condenser Coils |
| TT | Technicoat Evaporator & Condenser Coils & Phase Monitor |
| TU | Technicoat Evaporator & Condenser Coils & Coil Guard |
| TV | Technicoat Evaporator & Condenser Coils & Dirty Filter Switch |
| TW | Technicoat Evaporator & Condenser Coils, Phase Monitor, & Coil Guard |
| TX | Technicoat Evaporator & Condenser Coils, Phase Monitor, & Dirty Filter Switch |
| TY | Technicoat Evaporator & Condenser Coils, Coil Guard, & Dirty Filter Switch |
| TZ | Technicoat Evaporator & Condenser Coils, Phase Monitor, Coil Guard, & Dirty Filter Switch |
| RC | Coil Guard, Heavy Mil Clear Shipping Bag, Made in U.S.A. Flag Decal |

**TABLE 1: PHYSICAL DATA**

| Component | | Models | | |
|---|---|---|---|---|
| | | 090 | 120 | 150 |
| Evaporator Blower | Blower, Centrifugal Dia. X Wd. in. (Dia. X Wd. mm.) | 15 x 15 (381 x 381) | 15 x 15 (381 x 381) | 15 x 15 (381 x 381) |
| | Motor, Standard - HP (kW) | 1-1/2 (1.1) | 2 (1.5) | 4 (3) |
| | Motor, Optional - HP (kW) | 2 (1.5) | 4 (3) | N/A |
| Evaporator Coil | Rows | 2 | 3 | 4 |
| | Fins per 2.54 cm (1 in.) | 15 | 15 | 15 |
| | Height - in. (mm.) | 32 (810) | 40 (1020) | 40 (1020) |
| | Face Area - $ft.^2$ ($m^2$) | 10.6 (0.98) | 13.2 (1.23) | 13.2 (1.23) |
| Condenser Fan (2 per Unit) | Propeller Dia. - in. (mm.) ea. | 24 (610) | 24 (610) | 24 (610) |
| | Motor - HP (kW) ea. | 1/3 (0.25) | 3/4 (0.56) | 3/4 (0.56) |
| | Airflow - CFM ($m^3$/s) ea. | 3700 (1.75) | 3700 (1.75) | 3700 (1.75) |
| Condenser Coil (2 per unit) | Rows (each) | 1 | 1 | 2 |
| | Fins per inch (2.54 mm) | 20 | 20 | 20 |
| | Height - in. (mm.) | 28 (711) | 44 (1120) | 44 (1120) |
| | Face Area - $ft.^2$ ($m^2$) | 9.2 (.86) | 14.5 (1.35) | 14.5 (1.35) |
| Refrigerant Charge | System 1 - lbs. (kg.) | 4.38 (1.99) | 6.75 (3.06) | 11.0 (4.99) |
| | System 2 - lbs. (kg.) | 4.13 (1.87) | 6.13 (2.78) | 10.0 (4.54) |
| Compressors | Quantity | 2 | 2 | 2 |
| | Type | Recip | Recip | Scroll |
| Air Filters | Size Wd. x Ht. x Thickness in. (Wd. x Ht. x Thickness mm.) | 25 x 20 x 2 (635 x 508 x 51) | 25 x 20 x 2 (635 x 508 x 51) | 25 x 20 x 2 (635 x 508 x 51) |
| | Number Per Unit | 4 | 4 | 4 |

## TABLE 2: CAPACITY RATINGS IMPERIAL

| Model | | Cooling Capacity (80 / 67-95°F) | | Sound Rating (dB) | Nominal Electric Heat Capacity (kW)[1] | Gas Heat Capacity | | | |
|---|---|---|---|---|---|---|---|---|---|
| Cooling Cap. (MBH) | Options | MBH | EER | | | Input (MBH) | Output (MBH) | Temp Rise (°F) | Gas Line Size (in. OD) |
| 090 | DM | 89 | 9.00 | 87 | 7, 14, 18, 27 | - | - | - | - |
| | 10 | - | - | - | - | 120 | 96 | 15-45 | 3/4 |
| | 15 | - | - | - | - | 180 | 144 | 30-60 | 3/4 |
| 120 | DM | 116 | 9.0 | 85 | 14, 18, 27, 41 | - | - | - | - |
| | 15 | - | - | - | - | 180 | 144 | 20-50 | 3/4 |
| 150 | DM | 138 | 9.0 | 84 | 14, 18, 27, 41 | - | - | - | - |
| | 15 | - | - | - | - | 180 | 144 | 10-40 | 3/4 |

1. Electric heaters rated at 415V. See tables 10 through 12 for kW ratings at 380V.

## TABLE 3: CAPACITY RATINGS METRIC

| Model | | Cooling Capacity (27/19-35°C) | | Sound Rating (dB) | Nominal Electric Heat Capacity (kW)[1] | Gas Heat Capacity | | | |
|---|---|---|---|---|---|---|---|---|---|
| Cooling Cap. (kW) | Options | kW | CoP[2] | | | Input (kW) | Output (kW) | Temp Rise (°C) | Gas Line Size (mm. OD) |
| 090 (26.4) | DM | 26.1 | 2.64 | 87 | 7, 14, 18, 27 | | - | - | - |
| | 10 | - | - | - | - | 35.1 | 28.1 | 8.3-25 | 19.05 |
| | 15 | - | - | - | - | 52.7 | 42.2 | 17-33 | 19.05 |
| 120 (35.1) | DM | 34.0 | 2.64 | 85 | 14, 18, 27, 41 | - | - | - | - |
| | 15 | - | - | - | - | 52.7 | 42.2 | 11-28 | 19.05 |
| 150 (43.9) | DM | 40.4 | 2.64 | 84 | 14, 18, 27, 41 | - | - | - | - |
| | 15 | - | - | - | - | 52.7 | 42.2 | 5.6-22 | 19.05 |

1. Electric heaters rated at 415V. See tables 10 through 12 for kW ratings at 380V
2. CoP = Co-efficient of Performance (CoP = Cooling Capacity (kW) / Power Input (kW))

## TABLE 4: COOLING CAPACITY 7-1/2 TON UNIT - IMPERIAL

| Air On Evap. Coil | | Temperature of Air on Condenser Coil 85°F | | | | | | | | | Temperature of Air on Condenser Coil 95°F | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | WB (°F) | Tot. Cap.[1] (MBH) | Tot. Input[2] (kW) | Sensible Capacity (MBH)[1] Return Dry Bulb (°F) | | | | | | | Tot. Cap.[1] (MBH) | Tot. Input[2] (kW) | Sensible Capacity (MBH)[1] Return Dry Bulb (°F) | | | | | | |
| | | | | 86 | 83 | 80 | 77 | 74 | 71 | 68 | | | 86 | 83 | 80 | 77 | 74 | 71 | 68 |
| 2250 | 72 | 104 | 8.6 | 60 | 54 | 47 | 41 | 34 | - | - | 98 | 9.2 | 57 | 50 | 44 | 37 | 31 | - | - |
| | 67 | 96 | 8.4 | 74 | 68 | 61 | 55 | 48 | 42 | 35 | 90 | 9.0 | 71 | 64 | 58 | 51 | 45 | 39 | 32 |
| | 62 | 88 | 8.2 | 87 | 81 | 75 | 68 | 62 | 55 | 49 | 80 | 8.6 | 80 | 75 | 69 | 63 | 56 | 50 | 43 |
| | 57 | 84 | 8.2 | 84 | 83 | 77 | 71 | 64 | 58 | 51 | 78 | 8.6 | 78 | 77 | 71 | 64 | 58 | 51 | 45 |
| 2625 | 72 | 107 | 8.7 | 66 | 59 | 51 | 43 | 36 | - | - | 101 | 9.3 | 63 | 55 | 48 | 40 | 32 | - | - |
| | 67 | 99 | 8.5 | 81 | 73 | 66 | 58 | 51 | 43 | 35 | 92 | 9.1 | 78 | 71 | 63 | 55 | 48 | 40 | 33 |
| | 62 | 90 | 8.3 | 90 | 87 | 80 | 73 | 65 | 58 | 50 | 83 | 8.7 | 83 | 80 | 75 | 68 | 60 | 52 | 45 |
| | 57 | 87 | 8.2 | 87 | 86 | 83 | 75 | 68 | 60 | 53 | 81 | 8.7 | 81 | 80 | 77 | 69 | 62 | 54 | 46 |
| 3000 | 72 | 110 | 8.8 | 72 | 63 | 55 | 46 | 37 | - | - | 104 | 9.4 | 69 | 60 | 51 | 43 | 34 | - | - |
| | 67 | 102 | 8.6 | 88 | 79 | 71 | 62 | 53 | 44 | 36 | 95 | 9.2 | 86 | 77 | 68 | 59 | 51 | 42 | 33 |
| | 62 | 93 | 8.3 | 93 | 93 | 86 | 77 | 69 | 60 | 51 | 86 | 8.8 | 86 | 86 | 81 | 72 | 64 | 55 | 46 |
| | 57 | 89 | 8.3 | 89 | 89 | 89 | 80 | 71 | 63 | 54 | 83 | 8.8 | 83 | 83 | 83 | 74 | 66 | 57 | 48 |
| 3375 | 72 | 112 | 8.8 | 77 | 68 | 58 | 48 | 38 | - | - | 106 | 9.4 | 74 | 64 | 54 | 44 | 34 | - | - |
| | 67 | 104 | 8.6 | 94 | 84 | 74 | 64 | 54 | 44 | 35 | 97 | 9.2 | 92 | 82 | 72 | 62 | 52 | 42 | 32 |
| | 62 | 95 | 8.4 | 95 | 95 | 91 | 81 | 71 | 61 | 51 | 87 | 8.9 | 87 | 87 | 85 | 75 | 65 | 55 | 45 |
| | 57 | 91 | 8.3 | 91 | 91 | 91 | 81 | 71 | 61 | 51 | 84 | 8.9 | 84 | 84 | 84 | 74 | 64 | 55 | 45 |
| 3750 | 72 | 115 | 8.9 | 83 | 72 | 61 | 49 | 38 | - | - | 108 | 9.5 | 79 | 68 | 57 | 46 | 34 | - | - |
| | 67 | 106 | 8.7 | 101 | 89 | 78 | 67 | 56 | 45 | 33 | 99 | 9.3 | 97 | 86 | 75 | 64 | 53 | 42 | 30 |
| | 62 | 97 | 8.4 | 97 | 97 | 95 | 84 | 73 | 62 | 51 | 88 | 8.9 | 88 | 88 | 88 | 77 | 66 | 55 | 44 |
| | 57 | 92 | 8.4 | 92 | 92 | 92 | 81 | 70 | 59 | 48 | 86 | 8.9 | 86 | 86 | 86 | 75 | 63 | 52 | 41 |
| | | Temperature of Air on Condenser Coil 105°F | | | | | | | | | Temperature of Air on Condenser Coil 115°F | | | | | | | | |
| 2250 | 72 | 91 | 9.8 | 54 | 48 | 41 | 35 | 28 | - | - | 84 | 10.4 | 51 | 45 | 39 | 32 | 26 | - | - |
| | 67 | 81 | 9.5 | 67 | 61 | 54 | 48 | 42 | 35 | 29 | 73 | 10.0 | 64 | 57 | 51 | 45 | 38 | 32 | 25 |
| | 62 | 73 | 9.1 | 73 | 71 | 64 | 58 | 51 | 45 | 38 | 66 | 9.7 | 66 | 66 | 59 | 53 | 46 | 40 | 34 |
| | 57 | 71 | 9.1 | 71 | 71 | 64 | 58 | 52 | 45 | 39 | 65 | 9.7 | 65 | 65 | 58 | 52 | 45 | 39 | 33 |
| 2625 | 72 | 94 | 9.9 | 60 | 52 | 45 | 37 | 30 | - | - | 87 | 10.5 | 57 | 50 | 42 | 35 | 27 | - | - |
| | 67 | 84 | 9.6 | 74 | 67 | 59 | 52 | 44 | 37 | 29 | 76 | 10.1 | 71 | 63 | 56 | 48 | 40 | 33 | 25 |
| | 62 | 75 | 9.3 | 75 | 74 | 70 | 62 | 55 | 47 | 40 | 68 | 9.8 | 68 | 68 | 65 | 57 | 49 | 42 | 34 |
| | 57 | 74 | 9.3 | 74 | 73 | 70 | 63 | 55 | 47 | 40 | 67 | 9.8 | 67 | 67 | 64 | 56 | 48 | 41 | 33 |
| 3000 | 72 | 97 | 10.0 | 66 | 57 | 49 | 40 | 31 | - | - | 89 | 10.6 | 63 | 54 | 46 | 37 | 28 | - | - |
| | 67 | 87 | 9.7 | 82 | 73 | 64 | 55 | 47 | 38 | 29 | 78 | 10.2 | 78 | 69 | 60 | 52 | 43 | 34 | 25 |
| | 62 | 78 | 9.4 | 78 | 78 | 76 | 67 | 58 | 49 | 41 | 70 | 9.9 | 70 | 70 | 70 | 61 | 53 | 44 | 35 |
| | 57 | 76 | 9.4 | 76 | 76 | 76 | 67 | 58 | 50 | 41 | 69 | 9.9 | 69 | 69 | 69 | 60 | 51 | 43 | 34 |
| 3375 | 72 | 99 | 10.1 | 71 | 61 | 51 | 41 | 31 | - | - | 91 | 10.7 | 68 | 58 | 48 | 38 | 28 | - | - |
| | 67 | 88 | 9.8 | 85 | 78 | 68 | 58 | 48 | 38 | 28 | 80 | 10.3 | 79 | 74 | 64 | 54 | 44 | 34 | 24 |
| | 62 | 79 | 9.4 | 79 | 79 | 78 | 68 | 58 | 48 | 38 | 71 | 10.0 | 71 | 71 | 71 | 61 | 51 | 42 | 32 |
| | 57 | 77 | 9.4 | 77 | 77 | 77 | 67 | 57 | 47 | 37 | 70 | 10.0 | 70 | 70 | 70 | 60 | 50 | 40 | 30 |
| 3750 | 72 | 101 | 10.1 | 76 | 65 | 54 | 43 | 32 | - | - | 93 | 10.8 | 73 | 62 | 51 | 40 | 29 | - | - |
| | 67 | 90 | 9.8 | 89 | 82 | 71 | 60 | 49 | 38 | 27 | 81 | 10.4 | 81 | 79 | 67 | 56 | 45 | 34 | 23 |
| | 62 | 81 | 9.5 | 81 | 81 | 81 | 69 | 58 | 47 | 36 | 73 | 10.1 | 73 | 73 | 73 | 62 | 50 | 39 | 28 |
| | 57 | 79 | 9.5 | 79 | 79 | 79 | 68 | 56 | 45 | 34 | 72 | 10.1 | 72 | 72 | 72 | 60 | 49 | 38 | 27 |
| | | Temperature of Air on Condenser Coil 125°F | | | | | | | | | | | | | | | | | |
| 2250 | 72 | 77 | 11.0 | 49 | 42 | 36 | 30 | 23 | - | - | | | | | | | | | |
| | 67 | 65 | 10.5 | 60 | 54 | 48 | 41 | 35 | 28 | 22 | | | | | | | | | |
| | 62 | 59 | 10.2 | 59 | 59 | 54 | 48 | 42 | 35 | 29 | | | | | | | | | |
| | 57 | 58 | 10.2 | 58 | 58 | 52 | 46 | 39 | 33 | 26 | | | | | | | | | |
| 2625 | 72 | 80 | 11.1 | 55 | 47 | 39 | 32 | 24 | - | - | | | | | | | | | |
| | 67 | 67 | 10.6 | 67 | 60 | 52 | 44 | 37 | 29 | 22 | | | | | | | | | |
| | 62 | 60 | 10.3 | 60 | 60 | 59 | 52 | 44 | 37 | 29 | | | | | | | | | |
| | 57 | 60 | 10.3 | 60 | 60 | 57 | 49 | 42 | 34 | 27 | | | | | | | | | |
| 3000 | 72 | 82 | 11.2 | 60 | 51 | 43 | 34 | 25 | - | - | | | | | | | | | |
| | 67 | 69 | 10.8 | 69 | 65 | 56 | 48 | 39 | 30 | 21 | | | | | | | | | |
| | 62 | 62 | 10.4 | 62 | 62 | 62 | 56 | 47 | 38 | 29 | | | | | | | | | |
| | 57 | 62 | 10.5 | 62 | 62 | 62 | 53 | 44 | 36 | 27 | | | | | | | | | |
| 3375 | 72 | 84 | 11.4 | 65 | 55 | 45 | 35 | 26 | - | - | | | | | | | | | |
| | 67 | 71 | 10.9 | 71 | 70 | 60 | 50 | 40 | 30 | 20 | | | | | | | | | |
| | 62 | 64 | 10.5 | 64 | 64 | 64 | 55 | 45 | 35 | 25 | | | | | | | | | |
| | 57 | 63 | 10.6 | 63 | 63 | 63 | 53 | 43 | 33 | 23 | | | | | | | | | |
| 3750 | 72 | 85 | 11.5 | 70 | 59 | 48 | 37 | 26 | - | - | | | | | | | | | |
| | 67 | 72 | 11.0 | 72 | 72 | 63 | 52 | 41 | 30 | 19 | | | | | | | | | |
| | 62 | 65 | 10.6 | 65 | 65 | 65 | 54 | 43 | 31 | 20 | | | | | | | | | |
| | 57 | 64 | 10.7 | 64 | 64 | 64 | 53 | 42 | 31 | 20 | | | | | | | | | |

1 These capacities are gross ratings. For net capacity, deduct air blower motor, MBH = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.

2 These ratings include condenser fan motors and the compressor motors but not the supply air blower motor.

## TABLE 5: COOLING CAPACITY 26.4 KW UNIT - METRIC

| Air On Evap. Coil | | Temperature of Air on Condenser Coil 29°C | | | | | | | | | Temperature of Air on Condenser Coil 35°C | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $m^3/s$ | WB (°C) | Tot. Cap.[1] (kW) | Tot. Input[2] (kW) | Sensible Capacity (kW)[1] Return Dry Bulb (°F) | | | | | | | Tot. Cap.[1] (kW) | Tot. Input[2] (kW) | Sensible Capacity (kW)[1] Return Dry Bulb (°C) | | | | | | |
| | | | | 30 | 28 | 27 | 25 | 23 | 22 | 20 | | | 30 | 28 | 27 | 25 | 23 | 22 | 20 |
| 1.06 | 22 | 31 | 8.6 | 18 | 16 | 14 | 12 | 10 | - | - | 29 | 9.2 | 17 | 15 | 13 | 11 | 9 | - | - |
| | 19 | 28 | 8.4 | 22 | 20 | 18 | 16 | 14 | 12 | 10 | 26 | 9.0 | 21 | 19 | 17 | 15 | 13 | 11 | 9 |
| | 17 | 26 | 8.2 | 26 | 24 | 22 | 20 | 18 | 16 | 14 | 24 | 8.6 | 24 | 22 | 20 | 18 | 16 | 15 | 13 |
| | 14 | 25 | 8.2 | 25 | 24 | 23 | 21 | 19 | 17 | 15 | 23 | 8.6 | 23 | 23 | 21 | 19 | 17 | 15 | 13 |
| 1.24 | 22 | 31 | 8.7 | 19 | 17 | 15 | 13 | 10 | - | - | 30 | 9.3 | 18 | 16 | 14 | 12 | 9 | - | - |
| | 19 | 29 | 8.5 | 24 | 22 | 19 | 17 | 15 | 13 | 10 | 27 | 9.1 | 23 | 21 | 18 | 16 | 14 | 12 | 10 |
| | 17 | 27 | 8.3 | 26 | 26 | 24 | 21 | 19 | 17 | 15 | 24 | 8.7 | 24 | 24 | 22 | 20 | 18 | 15 | 13 |
| | 14 | 25 | 8.2 | 25 | 25 | 24 | 22 | 20 | 18 | 15 | 24 | 8.7 | 24 | 23 | 23 | 20 | 18 | 16 | 14 |
| 1.42 | 22 | 32 | 8.8 | 21 | 19 | 16 | 13 | 11 | - | - | 31 | 9.4 | 20 | 18 | 15 | 13 | 10 | - | - |
| | 19 | 30 | 8.6 | 26 | 23 | 21 | 18 | 16 | 13 | 10 | 28 | 9.2 | 25 | 23 | 20 | 17 | 15 | 12 | 10 |
| | 17 | 27 | 8.3 | 27 | 27 | 25 | 23 | 20 | 18 | 15 | 25 | 8.8 | 25 | 25 | 24 | 21 | 19 | 16 | 14 |
| | 14 | 26 | 8.3 | 26 | 26 | 26 | 24 | 21 | 18 | 16 | 24 | 8.8 | 24 | 24 | 24 | 22 | 19 | 17 | 14 |
| 1.59 | 22 | 33 | 8.8 | 23 | 20 | 17 | 14 | 11 | - | - | 31 | 9.4 | 22 | 19 | 16 | 13 | 10 | - | - |
| | 19 | 30 | 8.6 | 28 | 25 | 22 | 19 | 16 | 13 | 10 | 28 | 9.2 | 27 | 24 | 21 | 18 | 15 | 12 | 9 |
| | 17 | 28 | 8.4 | 28 | 28 | 27 | 24 | 21 | 18 | 15 | 25 | 8.9 | 25 | 25 | 25 | 22 | 19 | 16 | 13 |
| | 14 | 27 | 8.3 | 27 | 27 | 27 | 24 | 21 | 18 | 15 | 25 | 8.9 | 25 | 25 | 25 | 22 | 19 | 16 | 13 |
| 1.77 | 22 | 34 | 8.9 | 24 | 21 | 18 | 14 | 11 | - | - | 32 | 9.5 | 23 | 20 | 17 | 13 | 10 | - | - |
| | 19 | 31 | 8.7 | 29 | 26 | 23 | 20 | 16 | 13 | 10 | 29 | 9.3 | 29 | 25 | 22 | 19 | 15 | 12 | 9 |
| | 17 | 28 | 8.4 | 28 | 28 | 28 | 25 | 21 | 18 | 15 | 26 | 8.9 | 26 | 26 | 26 | 23 | 19 | 16 | 13 |
| | 14 | 27 | 8.4 | 27 | 27 | 27 | 24 | 21 | 17 | 14 | 25 | 8.9 | 25 | 25 | 25 | 22 | 19 | 15 | 12 |
| | | Temperature of Air on Condenser Coil 41°C | | | | | | | | | Temperature of Air on Condenser Coil 46°C | | | | | | | | |
| 1.06 | 22 | 27 | 9.8 | 16 | 14 | 12 | 10 | 8 | - | - | 25 | 10.4 | 15 | 13 | 11 | 9 | 8 | - | - |
| | 19 | 24 | 9.5 | 20 | 18 | 16 | 14 | 12 | 10 | 8 | 21 | 10.0 | 19 | 17 | 15 | 13 | 11 | 9 | 7 |
| | 17 | 21 | 9.1 | 21 | 21 | 19 | 17 | 15 | 13 | 11 | 19 | 9.7 | 19 | 19 | 17 | 15 | 14 | 12 | 10 |
| | 14 | 21 | 9.1 | 21 | 21 | 19 | 17 | 15 | 13 | 11 | 19 | 9.7 | 19 | 19 | 17 | 15 | 13 | 11 | 10 |
| 1.24 | 22 | 28 | 9.9 | 18 | 15 | 13 | 11 | 9 | - | - | 25 | 10.5 | 17 | 15 | 12 | 10 | 8 | - | - |
| | 19 | 25 | 9.6 | 22 | 20 | 17 | 15 | 13 | 11 | 8 | 22 | 10.1 | 21 | 19 | 16 | 14 | 12 | 10 | 7 |
| | 17 | 22 | 9.3 | 22 | 22 | 20 | 18 | 16 | 14 | 12 | 20 | 9.8 | 20 | 20 | 19 | 17 | 14 | 12 | 10 |
| | 14 | 22 | 9.3 | 22 | 22 | 21 | 18 | 16 | 14 | 12 | 20 | 9.8 | 20 | 20 | 19 | 16 | 14 | 12 | 10 |
| 1.42 | 22 | 28 | 10.0 | 19 | 17 | 14 | 12 | 9 | - | - | 26 | 10.6 | 19 | 16 | 13 | 11 | 8 | - | - |
| | 19 | 25 | 9.7 | 24 | 21 | 19 | 16 | 14 | 11 | 9 | 23 | 10.2 | 23 | 20 | 18 | 15 | 13 | 10 | 7 |
| | 17 | 23 | 9.4 | 23 | 23 | 22 | 20 | 17 | 14 | 12 | 21 | 9.9 | 21 | 21 | 21 | 18 | 15 | 13 | 10 |
| | 14 | 22 | 9.4 | 22 | 22 | 22 | 20 | 17 | 15 | 12 | 20 | 9.9 | 20 | 20 | 20 | 18 | 15 | 12 | 10 |
| 1.59 | 22 | 29 | 10.1 | 21 | 18 | 15 | 12 | 9 | - | - | 27 | 10.7 | 20 | 17 | 14 | 11 | 8 | - | - |
| | 19 | 26 | 9.8 | 25 | 23 | 20 | 17 | 14 | 11 | 8 | 23 | 10.3 | 23 | 22 | 19 | 16 | 13 | 10 | 7 |
| | 17 | 23 | 9.4 | 23 | 23 | 23 | 20 | 17 | 14 | 11 | 21 | 10.0 | 21 | 21 | 21 | 18 | 15 | 12 | 9 |
| | 14 | 23 | 9.4 | 23 | 23 | 23 | 20 | 17 | 14 | 11 | 21 | 10.0 | 21 | 21 | 21 | 18 | 15 | 12 | 9 |
| 1.77 | 22 | 29 | 10.1 | 22 | 19 | 16 | 13 | 9 | - | - | 27 | 10.8 | 21 | 18 | 15 | 12 | 8 | - | - |
| | 19 | 26 | 9.8 | 26 | 24 | 21 | 18 | 14 | 11 | 8 | 24 | 10.4 | 24 | 23 | 20 | 16 | 13 | 10 | 7 |
| | 17 | 24 | 9.5 | 24 | 24 | 24 | 20 | 17 | 14 | 11 | 21 | 10.1 | 21 | 21 | 21 | 18 | 15 | 12 | 8 |
| | 14 | 23 | 9.5 | 23 | 23 | 23 | 20 | 17 | 13 | 10 | 21 | 10.1 | 21 | 21 | 21 | 18 | 14 | 11 | 8 |
| | | Temperature of Air on Condenser Coil 52°C | | | | | | | | | | | | | | | | | |
| 1.06 | 22 | 23 | 11.0 | 14 | 12 | 11 | 9 | 7 | - | - | | | | | | | | | |
| | 19 | 19 | 10.5 | 18 | 16 | 14 | 12 | 10 | 8 | 6 | | | | | | | | | |
| | 17 | 17 | 10.2 | 17 | 17 | 16 | 14 | 12 | 10 | 8 | | | | | | | | | |
| | 14 | 17 | 10.2 | 17 | 17 | 15 | 13 | 12 | 10 | 8 | | | | | | | | | |
| 1.24 | 22 | 23 | 11.1 | 16 | 14 | 12 | 9 | 7 | - | - | | | | | | | | | |
| | 19 | 20 | 10.6 | 20 | 17 | 15 | 13 | 11 | 9 | 6 | | | | | | | | | |
| | 17 | 18 | 10.3 | 18 | 18 | 17 | 15 | 13 | 11 | 9 | | | | | | | | | |
| | 14 | 18 | 10.3 | 18 | 18 | 17 | 14 | 12 | 10 | 8 | | | | | | | | | |
| 1.42 | 22 | 24 | 11.2 | 18 | 15 | 13 | 10 | 7 | - | - | | | | | | | | | |
| | 19 | 20 | 10.8 | 20 | 19 | 17 | 14 | 11 | 9 | 6 | | | | | | | | | |
| | 17 | 18 | 10.4 | 18 | 18 | 18 | 16 | 14 | 11 | 9 | | | | | | | | | |
| | 14 | 18 | 10.5 | 18 | 18 | 18 | 16 | 13 | 10 | 8 | | | | | | | | | |
| 1.59 | 22 | 25 | 11.4 | 19 | 16 | 13 | 10 | 7 | - | - | | | | | | | | | |
| | 19 | 21 | 10.9 | 21 | 20 | 18 | 15 | 12 | 9 | 6 | | | | | | | | | |
| | 17 | 19 | 10.5 | 19 | 19 | 19 | 16 | 13 | 10 | 7 | | | | | | | | | |
| | 14 | 19 | 10.6 | 19 | 19 | 19 | 16 | 13 | 10 | 7 | | | | | | | | | |
| 1.77 | 22 | 25 | 11.5 | 21 | 17 | 14 | 11 | 8 | - | - | | | | | | | | | |
| | 19 | 21 | 11.0 | 21 | 21 | 19 | 15 | 12 | 9 | 5 | | | | | | | | | |
| | 17 | 19 | 10.6 | 19 | 19 | 19 | 16 | 12 | 9 | 6 | | | | | | | | | |
| | 14 | 19 | 10.7 | 19 | 19 | 19 | 16 | 12 | 9 | 6 | | | | | | | | | |

1 These capacities are gross ratings. For net capacity, deduct air blower motor. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.

2 These ratings include condenser fan motors and the compressor motors but not the supply air blower motor.

## TABLE 6: COOLING CAPACITY 10 TON UNIT - IMPERIAL

| Air On Evap. Coil | | Temperature of Air on Condenser Coil 85°F | | | | | | | | | Temperature of Air on Condenser Coil 95°F | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | WB (°F) | Tot. Cap.[1] (MBH) | Tot. Input[2] (kW) | Sensible Capacity (MBH)[1] Return Dry Bulb (°F) | | | | | | | Tot. Cap.[1] (MBH) | Tot. Input[2] (kW) | Sensible Capacity (MBH)[1] Return Dry Bulb (°F) | | | | | | |
| | | | | 86 | 83 | 80 | 77 | 74 | 71 | 68 | | | 86 | 83 | 80 | 77 | 74 | 71 | 68 |
| 3000 | 72 | 148 | 11.2 | 82 | 73 | 65 | 56 | 48 | - | - | 137 | 12.0 | 79 | 71 | 62 | 54 | 45 | - | - |
| | 67 | 134 | 10.8 | 102 | 94 | 85 | 77 | 68 | 60 | 51 | 124 | 11.6 | 98 | 90 | 81 | 73 | 64 | 56 | 47 |
| | 62 | 125 | 10.5 | 121 | 112 | 103 | 95 | 86 | 78 | 69 | 115 | 11.2 | 115 | 110 | 101 | 93 | 84 | 75 | 67 |
| | 57 | 123 | 10.6 | 123 | 116 | 107 | 99 | 90 | 82 | 73 | 110 | 11.4 | 110 | 110 | 101 | 93 | 84 | 76 | 67 |
| 3500 | 72 | 149 | 11.4 | 89 | 79 | 69 | 59 | 49 | - | - | 139 | 12.2 | 86 | 76 | 66 | 56 | 46 | - | - |
| | 67 | 136 | 11.0 | 111 | 101 | 91 | 81 | 71 | 61 | 51 | 126 | 11.7 | 106 | 96 | 86 | 76 | 66 | 56 | 46 |
| | 62 | 126 | 10.6 | 124 | 120 | 110 | 100 | 90 | 80 | 70 | 117 | 11.4 | 117 | 114 | 107 | 97 | 87 | 77 | 67 |
| | 57 | 124 | 10.7 | 124 | 120 | 114 | 104 | 94 | 84 | 74 | 112 | 11.5 | 112 | 112 | 107 | 97 | 87 | 77 | 67 |
| 4000 | 72 | 150 | 11.6 | 97 | 85 | 74 | 62 | 50 | - | - | 141 | 12.4 | 93 | 82 | 70 | 58 | 47 | - | - |
| | 67 | 137 | 11.2 | 120 | 108 | 97 | 85 | 73 | 62 | 50 | 128 | 11.9 | 115 | 103 | 91 | 80 | 68 | 56 | 45 |
| | 62 | 127 | 10.8 | 127 | 127 | 117 | 106 | 94 | 82 | 71 | 119 | 11.5 | 119 | 119 | 113 | 102 | 90 | 78 | 67 |
| | 57 | 125 | 10.9 | 125 | 125 | 122 | 110 | 98 | 87 | 75 | 113 | 11.7 | 113 | 113 | 113 | 102 | 90 | 78 | 67 |
| 4500 | 72 | 153 | 11.7 | 105 | 92 | 78 | 65 | 52 | - | - | 143 | 12.4 | 103 | 90 | 76 | 63 | 50 | - | - |
| | 67 | 139 | 11.3 | 130 | 116 | 103 | 90 | 76 | 63 | 50 | 129 | 12.0 | 122 | 113 | 100 | 86 | 73 | 60 | 47 |
| | 62 | 130 | 10.9 | 130 | 130 | 125 | 111 | 98 | 85 | 72 | 120 | 11.6 | 120 | 120 | 117 | 104 | 91 | 78 | 64 |
| | 57 | 127 | 11.0 | 127 | 127 | 125 | 112 | 99 | 86 | 72 | 115 | 11.7 | 115 | 115 | 115 | 101 | 88 | 75 | 61 |
| 5000 | 72 | 156 | 11.7 | 113 | 98 | 83 | 68 | 53 | - | - | 144 | 12.5 | 113 | 98 | 83 | 68 | 53 | - | - |
| | 67 | 141 | 11.4 | 139 | 124 | 109 | 94 | 79 | 65 | 50 | 130 | 12.1 | 130 | 123 | 108 | 93 | 79 | 64 | 49 |
| | 62 | 132 | 11.0 | 132 | 132 | 132 | 117 | 102 | 87 | 72 | 122 | 11.7 | 122 | 122 | 122 | 107 | 92 | 77 | 62 |
| | 57 | 129 | 11.1 | 129 | 129 | 129 | 114 | 100 | 85 | 70 | 116 | 11.8 | 116 | 116 | 116 | 101 | 86 | 71 | 56 |
| | | Temperature of Air on Condenser Coil 105°F | | | | | | | | | Temperature of Air on Condenser Coil 115°F | | | | | | | | |
| 3000 | 72 | 129 | 12.8 | 75 | 67 | 58 | 50 | 41 | - | - | 122 | 13.5 | 71 | 63 | 54 | 46 | 37 | - | - |
| | 67 | 114 | 12.3 | 94 | 86 | 77 | 68 | 60 | 51 | 43 | 105 | 13.0 | 90 | 81 | 73 | 64 | 56 | 47 | 38 |
| | 62 | 109 | 11.9 | 109 | 103 | 95 | 86 | 78 | 69 | 61 | 102 | 12.6 | 102 | 97 | 89 | 80 | 72 | 63 | 55 |
| | 57 | 104 | 12.1 | 104 | 102 | 93 | 84 | 76 | 67 | 59 | 98 | 12.8 | 98 | 93 | 85 | 76 | 68 | 59 | 51 |
| 3500 | 72 | 130 | 13.0 | 82 | 72 | 62 | 52 | 42 | - | - | 122 | 13.7 | 78 | 68 | 58 | 48 | 38 | - | - |
| | 67 | 115 | 12.5 | 102 | 92 | 82 | 72 | 62 | 52 | 42 | 105 | 13.2 | 97 | 88 | 78 | 68 | 58 | 48 | 38 |
| | 62 | 110 | 12.1 | 110 | 107 | 101 | 91 | 81 | 71 | 61 | 102 | 12.8 | 102 | 100 | 95 | 85 | 75 | 65 | 55 |
| | 57 | 105 | 12.3 | 105 | 103 | 99 | 89 | 79 | 69 | 59 | 97 | 13.0 | 97 | 95 | 91 | 81 | 71 | 61 | 51 |
| 4000 | 72 | 131 | 13.1 | 89 | 78 | 66 | 54 | 43 | - | - | 121 | 13.9 | 85 | 74 | 62 | 51 | 39 | - | - |
| | 67 | 116 | 12.7 | 110 | 99 | 87 | 76 | 64 | 52 | 41 | 105 | 13.4 | 105 | 95 | 83 | 72 | 60 | 48 | 37 |
| | 62 | 111 | 12.3 | 111 | 111 | 108 | 96 | 84 | 73 | 61 | 102 | 13.0 | 102 | 102 | 102 | 90 | 79 | 67 | 55 |
| | 57 | 105 | 12.4 | 105 | 105 | 105 | 94 | 82 | 70 | 59 | 97 | 13.2 | 97 | 97 | 97 | 86 | 74 | 62 | 51 |
| 4500 | 72 | 133 | 13.2 | 98 | 85 | 72 | 58 | 45 | - | - | 124 | 14.0 | 94 | 80 | 67 | 54 | 40 | - | - |
| | 67 | 118 | 12.7 | 115 | 108 | 95 | 82 | 68 | 55 | 42 | 107 | 13.5 | 107 | 102 | 90 | 77 | 63 | 50 | 37 |
| | 62 | 112 | 12.4 | 112 | 112 | 111 | 98 | 84 | 71 | 58 | 104 | 13.1 | 104 | 104 | 104 | 91 | 78 | 64 | 51 |
| | 57 | 107 | 12.5 | 107 | 107 | 107 | 94 | 80 | 67 | 54 | 99 | 13.3 | 99 | 99 | 99 | 86 | 73 | 60 | 46 |
| 5000 | 72 | 135 | 13.3 | 107 | 92 | 77 | 63 | 48 | - | - | 127 | 14.1 | 102 | 87 | 72 | 57 | 42 | - | - |
| | 67 | 120 | 12.8 | 120 | 116 | 102 | 87 | 73 | 58 | 43 | 110 | 13.6 | 110 | 110 | 96 | 82 | 67 | 52 | 37 |
| | 62 | 114 | 12.5 | 114 | 114 | 114 | 99 | 84 | 69 | 54 | 106 | 13.2 | 106 | 106 | 106 | 92 | 77 | 62 | 47 |
| | 57 | 109 | 12.6 | 109 | 109 | 109 | 94 | 79 | 64 | 49 | 102 | 13.4 | 102 | 102 | 102 | 87 | 72 | 57 | 42 |
| | | Temperature of Air on Condenser Coil 125°F | | | | | | | | | | | | | | | | | |
| 3000 | 72 | 115 | 14.2 | 67 | 59 | 50 | 42 | 33 | - | - | | | | | | | | | |
| | 67 | 96 | 13.7 | 85 | 77 | 68 | 60 | 51 | 43 | 34 | | | | | | | | | |
| | 62 | 96 | 13.3 | 96 | 91 | 83 | 74 | 66 | 57 | 48 | | | | | | | | | |
| | 57 | 92 | 13.5 | 92 | 85 | 77 | 68 | 59 | 51 | 42 | | | | | | | | | |
| 3500 | 72 | 113 | 14.5 | 74 | 64 | 54 | 44 | 34 | - | - | | | | | | | | | |
| | 67 | 95 | 13.9 | 93 | 84 | 74 | 64 | 54 | 44 | 33 | | | | | | | | | |
| | 62 | 95 | 13.5 | 95 | 92 | 89 | 79 | 69 | 59 | 49 | | | | | | | | | |
| | 57 | 90 | 13.8 | 90 | 87 | 83 | 73 | 63 | 53 | 42 | | | | | | | | | |
| 4000 | 72 | 112 | 14.7 | 82 | 70 | 58 | 47 | 35 | - | - | | | | | | | | | |
| | 67 | 94 | 14.2 | 94 | 91 | 79 | 68 | 56 | 44 | 33 | | | | | | | | | |
| | 62 | 93 | 13.8 | 93 | 93 | 93 | 84 | 73 | 61 | 49 | | | | | | | | | |
| | 57 | 89 | 14.0 | 89 | 89 | 89 | 77 | 66 | 54 | 43 | | | | | | | | | |
| 4500 | 72 | 115 | 14.8 | 89 | 76 | 62 | 49 | 36 | - | - | | | | | | | | | |
| | 67 | 96 | 14.3 | 96 | 96 | 85 | 72 | 58 | 45 | 32 | | | | | | | | | |
| | 62 | 96 | 13.8 | 96 | 96 | 96 | 84 | 71 | 58 | 44 | | | | | | | | | |
| | 57 | 92 | 14.1 | 92 | 92 | 92 | 79 | 65 | 52 | 39 | | | | | | | | | |
| 5000 | 72 | 118 | 14.9 | 96 | 81 | 66 | 51 | 37 | - | - | | | | | | | | | |
| | 67 | 99 | 14.4 | 99 | 99 | 90 | 76 | 61 | 46 | 31 | | | | | | | | | |
| | 62 | 99 | 13.9 | 99 | 99 | 99 | 84 | 69 | 54 | 39 | | | | | | | | | |
| | 57 | 95 | 14.2 | 95 | 95 | 95 | 80 | 65 | 50 | 35 | | | | | | | | | |

1 These capacities are gross ratings. For net capacity, deduct air blower motor, MBH = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.

2 These ratings include condenser fan motors and the compressor motors but not the supply air blower motor.

## TABLE 7: COOLING CAPACITY 35.1 KW UNIT - METRIC

| Air On Evap. Coil | | Temperature of Air on Condenser Coil 29°C | | | | | | | | | Temperature of Air on Condenser Coil 35°C | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $m^3/s$ | WB (°C) | Tot. Cap.[1] (kW) | Tot. Input[2] (kW) | Sensible Capacity (kW)[1] Return Dry Bulb (°C) | | | | | | | Tot. Cap.[1] (kW) | Tot. Input[2] (kW) | Sensible Capacity (kW)[1] Return Dry Bulb (°C) | | | | | | |
| | | | | 30 | 28 | 27 | 25 | 23 | 22 | 20 | | | 30 | 28 | 27 | 25 | 23 | 22 | 20 |
| 1.42 | 22 | 43 | 11.2 | 24 | 22 | 19 | 16 | 14 | - | - | 40 | 12.0 | 23 | 21 | 18 | 16 | 13 | - | - |
| | 19 | 39 | 10.8 | 30 | 28 | 25 | 22 | 20 | 17 | 15 | 36 | 11.6 | 29 | 26 | 24 | 21 | 19 | 16 | 14 |
| | 17 | 37 | 10.5 | 35 | 33 | 30 | 28 | 25 | 23 | 20 | 34 | 11.2 | 34 | 32 | 30 | 27 | 25 | 22 | 20 |
| | 14 | 36 | 10.6 | 36 | 34 | 31 | 29 | 26 | 24 | 21 | 32 | 11.4 | 32 | 32 | 30 | 27 | 25 | 22 | 20 |
| 1.65 | 22 | 44 | 11.4 | 26 | 23 | 20 | 17 | 14 | - | - | 41 | 12.2 | 25 | 22 | 19 | 16 | 13 | - | - |
| | 19 | 40 | 11.0 | 33 | 30 | 27 | 24 | 21 | 18 | 15 | 37 | 11.7 | 31 | 28 | 25 | 22 | 19 | 16 | 13 |
| | 17 | 37 | 10.6 | 36 | 35 | 32 | 29 | 26 | 23 | 21 | 34 | 11.4 | 34 | 34 | 31 | 28 | 25 | 23 | 20 |
| | 14 | 36 | 10.7 | 36 | 35 | 34 | 31 | 28 | 25 | 22 | 33 | 11.5 | 33 | 33 | 31 | 28 | 26 | 23 | 20 |
| 1.89 | 22 | 44 | 11.6 | 28 | 25 | 22 | 18 | 15 | - | - | 41 | 12.4 | 27 | 24 | 20 | 17 | 14 | - | - |
| | 19 | 40 | 11.2 | 35 | 32 | 28 | 25 | 22 | 18 | 15 | 37 | 11.9 | 34 | 30 | 27 | 23 | 20 | 16 | 13 |
| | 17 | 37 | 10.8 | 37 | 37 | 34 | 31 | 28 | 24 | 21 | 35 | 11.5 | 35 | 35 | 33 | 30 | 26 | 23 | 20 |
| | 14 | 37 | 10.9 | 37 | 37 | 36 | 32 | 29 | 25 | 22 | 33 | 11.7 | 33 | 33 | 33 | 30 | 26 | 23 | 20 |
| 2.12 | 22 | 45 | 11.7 | 31 | 27 | 23 | 19 | 15 | - | - | 42 | 12.4 | 30 | 26 | 22 | 19 | 15 | - | - |
| | 19 | 41 | 11.3 | 38 | 34 | 30 | 26 | 22 | 19 | 15 | 38 | 12.0 | 36 | 33 | 29 | 25 | 21 | 18 | 14 |
| | 17 | 38 | 10.9 | 38 | 38 | 37 | 33 | 29 | 25 | 21 | 35 | 11.6 | 35 | 35 | 34 | 31 | 27 | 23 | 19 |
| | 14 | 37 | 11.0 | 37 | 37 | 37 | 33 | 29 | 25 | 21 | 34 | 11.7 | 34 | 34 | 34 | 30 | 26 | 22 | 18 |
| 2.36 | 22 | 46 | 11.7 | 33 | 29 | 24 | 20 | 16 | - | - | 42 | 12.5 | 33 | 29 | 24 | 20 | 16 | - | - |
| | 19 | 41 | 11.4 | 41 | 36 | 32 | 28 | 23 | 19 | 15 | 38 | 12.1 | 38 | 36 | 32 | 27 | 23 | 19 | 14 |
| | 17 | 39 | 11.0 | 39 | 39 | 39 | 34 | 30 | 26 | 21 | 36 | 11.7 | 36 | 36 | 36 | 31 | 27 | 23 | 18 |
| | 14 | 38 | 11.1 | 38 | 38 | 38 | 34 | 29 | 25 | 20 | 34 | 11.8 | 34 | 34 | 34 | 30 | 25 | 21 | 16 |
| | | Temperature of Air on Condenser Coil 41°C | | | | | | | | | Temperature of Air on Condenser Coil 46°C | | | | | | | | |
| 1.42 | 22 | 38 | 12.8 | 22 | 20 | 17 | 15 | 12 | - | - | 36 | 13.5 | 21 | 18 | 16 | 13 | 11 | - | - |
| | 19 | 34 | 12.3 | 28 | 25 | 23 | 20 | 18 | 15 | 13 | 31 | 13.0 | 26 | 24 | 21 | 19 | 16 | 14 | 11 |
| | 17 | 32 | 11.9 | 32 | 30 | 28 | 25 | 23 | 20 | 18 | 30 | 12.6 | 30 | 29 | 26 | 24 | 21 | 18 | 16 |
| | 14 | 30 | 12.1 | 30 | 30 | 27 | 25 | 22 | 20 | 17 | 29 | 12.8 | 29 | 27 | 25 | 22 | 20 | 17 | 15 |
| 1.65 | 22 | 38 | 13.0 | 24 | 21 | 18 | 15 | 12 | - | - | 36 | 13.7 | 23 | 20 | 17 | 14 | 11 | - | - |
| | 19 | 34 | 12.5 | 30 | 27 | 24 | 21 | 18 | 15 | 12 | 31 | 13.2 | 29 | 26 | 23 | 20 | 17 | 14 | 11 |
| | 17 | 32 | 12.1 | 32 | 31 | 30 | 27 | 24 | 21 | 18 | 30 | 12.8 | 30 | 29 | 28 | 25 | 22 | 19 | 16 |
| | 14 | 31 | 12.3 | 31 | 30 | 29 | 26 | 23 | 20 | 17 | 29 | 13.0 | 29 | 28 | 27 | 24 | 21 | 18 | 15 |
| 1.89 | 22 | 38 | 13.1 | 26 | 23 | 19 | 16 | 13 | - | - | 36 | 13.9 | 25 | 22 | 18 | 15 | 11 | - | - |
| | 19 | 34 | 12.7 | 32 | 29 | 26 | 22 | 19 | 15 | 12 | 31 | 13.4 | 31 | 28 | 24 | 21 | 18 | 14 | 11 |
| | 17 | 32 | 12.3 | 32 | 32 | 32 | 28 | 25 | 21 | 18 | 30 | 13.0 | 30 | 30 | 30 | 26 | 23 | 20 | 16 |
| | 14 | 31 | 12.4 | 31 | 31 | 31 | 27 | 24 | 21 | 17 | 29 | 13.2 | 29 | 29 | 29 | 25 | 22 | 18 | 15 |
| 2.12 | 22 | 39 | 13.2 | 29 | 25 | 21 | 17 | 13 | - | - | 36 | 14.0 | 27 | 24 | 20 | 16 | 12 | - | - |
| | 19 | 35 | 12.7 | 34 | 32 | 28 | 24 | 20 | 16 | 12 | 31 | 13.5 | 31 | 30 | 26 | 22 | 19 | 15 | 11 |
| | 17 | 33 | 12.4 | 33 | 33 | 32 | 29 | 25 | 21 | 17 | 31 | 13.1 | 31 | 31 | 31 | 27 | 23 | 19 | 15 |
| | 14 | 31 | 12.5 | 31 | 31 | 31 | 27 | 24 | 20 | 16 | 29 | 13.3 | 29 | 29 | 29 | 25 | 21 | 17 | 14 |
| 2.36 | 22 | 40 | 13.3 | 31 | 27 | 23 | 18 | 14 | - | - | 37 | 14.1 | 30 | 25 | 21 | 17 | 12 | - | - |
| | 19 | 35 | 12.8 | 35 | 34 | 30 | 26 | 21 | 17 | 13 | 32 | 13.6 | 32 | 32 | 28 | 24 | 20 | 15 | 11 |
| | 17 | 33 | 12.5 | 33 | 33 | 33 | 29 | 25 | 20 | 16 | 31 | 13.2 | 31 | 31 | 31 | 27 | 22 | 18 | 14 |
| | 14 | 32 | 12.6 | 32 | 32 | 32 | 27 | 23 | 19 | 14 | 30 | 13.4 | 30 | 30 | 30 | 25 | 21 | 17 | 12 |
| | | Temperature of Air on Condenser Coil 52°C | | | | | | | | | | | | | | | | | |
| 1.42 | 22 | 34 | 14.2 | 20 | 17 | 15 | 12 | 10 | - | - | | | | | | | | | |
| | 19 | 28 | 13.7 | 25 | 23 | 20 | 18 | 15 | 12 | 10 | | | | | | | | | |
| | 17 | 28 | 13.3 | 28 | 27 | 24 | 22 | 19 | 17 | 14 | | | | | | | | | |
| | 14 | 27 | 13.5 | 27 | 25 | 22 | 20 | 17 | 15 | 12 | | | | | | | | | |
| 1.65 | 22 | 33 | 14.5 | 22 | 19 | 16 | 13 | 10 | - | - | | | | | | | | | |
| | 19 | 28 | 13.9 | 27 | 25 | 22 | 19 | 16 | 13 | 10 | | | | | | | | | |
| | 17 | 28 | 13.5 | 28 | 27 | 26 | 23 | 20 | 17 | 14 | | | | | | | | | |
| | 14 | 26 | 13.8 | 26 | 26 | 24 | 21 | 18 | 15 | 12 | | | | | | | | | |
| 1.89 | 22 | 33 | 14.7 | 24 | 21 | 17 | 14 | 10 | - | - | | | | | | | | | |
| | 19 | 27 | 14.2 | 27 | 27 | 23 | 20 | 16 | 13 | 10 | | | | | | | | | |
| | 17 | 27 | 13.8 | 27 | 27 | 27 | 25 | 21 | 18 | 15 | | | | | | | | | |
| | 14 | 26 | 14.0 | 26 | 26 | 26 | 23 | 19 | 16 | 12 | | | | | | | | | |
| 2.12 | 22 | 34 | 14.8 | 26 | 22 | 18 | 14 | 10 | - | - | | | | | | | | | |
| | 19 | 28 | 14.3 | 28 | 28 | 25 | 21 | 17 | 13 | 9 | | | | | | | | | |
| | 17 | 28 | 13.8 | 28 | 28 | 28 | 25 | 21 | 17 | 13 | | | | | | | | | |
| | 14 | 27 | 14.1 | 27 | 27 | 27 | 23 | 19 | 15 | 11 | | | | | | | | | |
| 2.36 | 22 | 35 | 14.9 | 28 | 24 | 19 | 15 | 11 | - | - | | | | | | | | | |
| | 19 | 29 | 14.4 | 29 | 29 | 27 | 22 | 18 | 13 | 9 | | | | | | | | | |
| | 17 | 29 | 13.9 | 29 | 29 | 29 | 25 | 20 | 16 | 12 | | | | | | | | | |
| | 14 | 28 | 14.2 | 28 | 28 | 28 | 23 | 19 | 15 | 10 | | | | | | | | | |

1 These capacities are gross ratings. For net capacity, deduct air blower motor. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.

2 These ratings include condenser fan motors and the compressor motors but not the supply air blower motor.

## TABLE 8: COOLING CAPACITY 12-1/2 TON UNIT - IMPERIAL

| Air On Evap. Coil | | Temperature of Air on Condenser Coil 85°F | | | | | | | | | Temperature of Air on Condenser Coil 95°F | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | WB (°F) | Tot. Cap.[1] (MBH) | Tot. Input[2] (kW) | Sensible Capacity (MBH)[1] Return Dry Bulb (°F) | | | | | | | Tot. Cap.[1] (MBH) | Tot. Input[2] (kW) | Sensible Capacity (MBH)[1] Return Dry Bulb (°F) | | | | | |
| | | | | 86 | 83 | 80 | 77 | 74 | 71 | 68 | | | 86 | 83 | 80 | 77 | 74 | 71 | 68 |
| 3750 | 72 | 150 | 11.8 | 90 | 80 | 69 | 58 | 47 | - | - | 143 | 13.0 | 88 | 78 | 67 | 56 | 45 | - | - |
| | 67 | 140 | 11.5 | 115 | 104 | 94 | 83 | 72 | 61 | 51 | 132 | 12.6 | 111 | 101 | 90 | 79 | 69 | 58 | 47 |
| | 62 | 123 | 11.2 | 123 | 116 | 105 | 95 | 84 | 73 | 63 | 117 | 12.4 | 117 | 112 | 102 | 91 | 80 | 70 | 59 |
| | 57 | 118 | 11.3 | 118 | 116 | 105 | 95 | 84 | 73 | 63 | 111 | 12.5 | 111 | 111 | 100 | 90 | 79 | 68 | 57 |
| 4375 | 72 | 155 | 11.8 | 101 | 88 | 75 | 63 | 50 | - | - | 148 | 13.0 | 98 | 86 | 73 | 61 | 48 | - | - |
| | 67 | 145 | 11.5 | 128 | 115 | 102 | 90 | 77 | 64 | 52 | 137 | 12.5 | 124 | 111 | 99 | 86 | 73 | 61 | 48 |
| | 62 | 127 | 11.2 | 127 | 124 | 115 | 103 | 90 | 77 | 65 | 121 | 12.4 | 121 | 119 | 111 | 99 | 86 | 73 | 61 |
| | 57 | 122 | 11.3 | 122 | 121 | 115 | 103 | 90 | 77 | 65 | 115 | 12.4 | 115 | 115 | 110 | 97 | 84 | 72 | 59 |
| 5000 | 72 | 161 | 11.8 | 111 | 96 | 82 | 67 | 53 | - | - | 153 | 12.9 | 109 | 94 | 80 | 65 | 50 | - | - |
| | 67 | 150 | 11.5 | 140 | 126 | 111 | 97 | 82 | 67 | 53 | 142 | 12.5 | 136 | 122 | 107 | 92 | 78 | 63 | 49 |
| | 62 | 132 | 11.3 | 132 | 132 | 125 | 111 | 96 | 82 | 67 | 125 | 12.3 | 125 | 125 | 121 | 106 | 92 | 77 | 63 |
| | 57 | 126 | 11.3 | 126 | 126 | 125 | 111 | 96 | 82 | 67 | 119 | 12.4 | 119 | 119 | 119 | 105 | 90 | 75 | 61 |
| 5625 | 72 | 165 | 11.9 | 132 | 115 | 99 | 82 | 65 | - | - | 157 | 13.1 | 129 | 112 | 95 | 79 | 62 | - | - |
| | 67 | 153 | 11.6 | 149 | 141 | 134 | 118 | 101 | 84 | 68 | 146 | 12.6 | 143 | 136 | 128 | 112 | 95 | 79 | 62 |
| | 62 | 135 | 11.3 | 135 | 135 | 132 | 115 | 98 | 82 | 65 | 129 | 12.5 | 129 | 129 | 126 | 110 | 93 | 77 | 60 |
| | 57 | 129 | 11.4 | 129 | 129 | 129 | 112 | 96 | 79 | 62 | 123 | 12.5 | 123 | 123 | 123 | 106 | 89 | 73 | 56 |
| 6250 | 72 | 169 | 11.9 | 153 | 134 | 116 | 97 | 78 | - | - | 162 | 13.2 | 148 | 130 | 111 | 93 | 74 | - | - |
| | 67 | 157 | 11.6 | 157 | 157 | 157 | 138 | 120 | 101 | 83 | 150 | 12.8 | 150 | 150 | 150 | 131 | 112 | 94 | 75 |
| | 62 | 138 | 11.4 | 138 | 138 | 138 | 119 | 101 | 82 | 63 | 132 | 12.6 | 132 | 132 | 132 | 113 | 95 | 76 | 58 |
| | 57 | 133 | 11.4 | 133 | 133 | 133 | 114 | 95 | 77 | 58 | 126 | 12.7 | 126 | 126 | 126 | 107 | 89 | 70 | 51 |
| | | Temperature of Air on Condenser Coil 105°F | | | | | | | | | Temperature of Air on Condenser Coil 115°F | | | | | | | | |
| 3750 | 72 | 135 | 14.3 | 86 | 75 | 64 | 54 | 43 | - | - | 127 | 15.6 | 83 | 72 | 62 | 51 | 40 | - | - |
| | 67 | 124 | 13.8 | 108 | 97 | 87 | 76 | 65 | 55 | 44 | 117 | 15.1 | 105 | 94 | 83 | 73 | 62 | 51 | 41 |
| | 62 | 110 | 13.6 | 110 | 108 | 97 | 86 | 75 | 65 | 54 | 103 | 14.9 | 103 | 103 | 92 | 81 | 71 | 60 | 49 |
| | 57 | 105 | 13.8 | 105 | 105 | 94 | 84 | 73 | 62 | 52 | 99 | 15.0 | 99 | 99 | 89 | 78 | 67 | 57 | 46 |
| 4375 | 72 | 139 | 14.3 | 96 | 83 | 70 | 58 | 45 | - | - | 131 | 15.6 | 93 | 80 | 67 | 55 | 42 | - | - |
| | 67 | 129 | 13.8 | 119 | 108 | 95 | 82 | 70 | 57 | 44 | 121 | 15.1 | 115 | 104 | 91 | 79 | 66 | 53 | 41 |
| | 62 | 114 | 13.6 | 114 | 113 | 106 | 93 | 81 | 68 | 56 | 107 | 14.9 | 107 | 106 | 101 | 88 | 76 | 63 | 50 |
| | 57 | 109 | 13.7 | 109 | 109 | 103 | 91 | 78 | 66 | 53 | 103 | 15.0 | 103 | 103 | 97 | 85 | 72 | 59 | 47 |
| 5000 | 72 | 144 | 14.3 | 106 | 91 | 76 | 62 | 47 | - | - | 135 | 15.6 | 102 | 88 | 73 | 59 | 44 | - | - |
| | 67 | 133 | 13.8 | 130 | 118 | 103 | 89 | 74 | 59 | 45 | 124 | 15.1 | 124 | 114 | 99 | 85 | 70 | 56 | 41 |
| | 62 | 118 | 13.6 | 118 | 118 | 115 | 101 | 86 | 72 | 57 | 110 | 14.9 | 110 | 110 | 110 | 95 | 80 | 66 | 51 |
| | 57 | 113 | 13.7 | 113 | 113 | 112 | 98 | 83 | 69 | 54 | 106 | 15.0 | 106 | 106 | 106 | 91 | 76 | 62 | 47 |
| 5625 | 72 | 148 | 14.4 | 121 | 105 | 88 | 72 | 55 | - | - | 138 | 15.7 | 114 | 98 | 81 | 64 | 48 | - | - |
| | 67 | 136 | 13.9 | 135 | 129 | 119 | 103 | 86 | 69 | 53 | 127 | 15.2 | 127 | 122 | 110 | 93 | 77 | 60 | 43 |
| | 62 | 120 | 13.7 | 120 | 120 | 119 | 103 | 86 | 69 | 53 | 112 | 15.0 | 112 | 112 | 112 | 95 | 79 | 62 | 46 |
| | 57 | 115 | 13.8 | 115 | 115 | 115 | 99 | 82 | 65 | 49 | 108 | 15.1 | 108 | 108 | 108 | 91 | 75 | 58 | 41 |
| 6250 | 72 | 151 | 14.5 | 137 | 119 | 100 | 81 | 63 | - | - | 140 | 15.8 | 126 | 107 | 89 | 70 | 52 | - | - |
| | 67 | 139 | 14.0 | 139 | 139 | 135 | 116 | 98 | 79 | 61 | 129 | 15.3 | 129 | 129 | 120 | 102 | 83 | 65 | 46 |
| | 62 | 123 | 13.8 | 123 | 123 | 123 | 105 | 86 | 67 | 49 | 115 | 15.0 | 115 | 115 | 115 | 96 | 77 | 59 | 40 |
| | 57 | 118 | 13.9 | 118 | 118 | 118 | 99 | 81 | 62 | 43 | 110 | 15.2 | 110 | 110 | 110 | 91 | 73 | 54 | 36 |
| | | Temperature of Air on Condenser Coil 125°F | | | | | | | | | | | | | | | | | |
| 3750 | 72 | 119 | 16.9 | 80 | 70 | 59 | 48 | 37 | - | - | | | | | | | | | |
| | 67 | 109 | 16.4 | 101 | 91 | 80 | 69 | 59 | 48 | 37 | | | | | | | | | |
| | 62 | 97 | 16.1 | 97 | 97 | 87 | 77 | 66 | 55 | 44 | | | | | | | | | |
| | 57 | 93 | 16.3 | 93 | 93 | 83 | 72 | 62 | 51 | 40 | | | | | | | | | |
| 4375 | 72 | 122 | 16.9 | 90 | 77 | 64 | 52 | 39 | - | - | | | | | | | | | |
| | 67 | 112 | 16.4 | 110 | 100 | 88 | 75 | 62 | 50 | 37 | | | | | | | | | |
| | 62 | 100 | 16.1 | 100 | 100 | 96 | 83 | 70 | 58 | 45 | | | | | | | | | |
| | 57 | 96 | 16.3 | 96 | 96 | 91 | 78 | 66 | 53 | 40 | | | | | | | | | |
| 5000 | 72 | 126 | 16.9 | 99 | 85 | 70 | 56 | 41 | - | - | | | | | | | | | |
| | 67 | 115 | 16.4 | 115 | 110 | 95 | 81 | 66 | 52 | 37 | | | | | | | | | |
| | 62 | 102 | 16.1 | 102 | 102 | 102 | 89 | 75 | 60 | 46 | | | | | | | | | |
| | 57 | 99 | 16.3 | 99 | 99 | 99 | 84 | 70 | 55 | 41 | | | | | | | | | |
| 5625 | 72 | 128 | 17.0 | 107 | 91 | 74 | 57 | 41 | - | - | | | | | | | | | |
| | 67 | 117 | 16.5 | 117 | 115 | 101 | 84 | 67 | 51 | 34 | | | | | | | | | |
| | 62 | 104 | 16.2 | 104 | 104 | 104 | 88 | 72 | 55 | 38 | | | | | | | | | |
| | 57 | 101 | 16.4 | 101 | 101 | 101 | 84 | 67 | 51 | 34 | | | | | | | | | |
| 6250 | 72 | 130 | 17.1 | 115 | 96 | 78 | 59 | 40 | - | - | | | | | | | | | |
| | 67 | 119 | 16.5 | 119 | 119 | 106 | 87 | 69 | 50 | 31 | | | | | | | | | |
| | 62 | 106 | 16.3 | 106 | 106 | 106 | 87 | 69 | 50 | 31 | | | | | | | | | |
| | 57 | 102 | 16.5 | 102 | 102 | 102 | 84 | 65 | 46 | 28 | | | | | | | | | |

1 These capacities are gross ratings. For net capacity, deduct air blower motor, MBH = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.

2 These ratings include condenser fan motors and the compressor motors but not the supply air blower motor.

## TABLE 9: COOLING CAPACITY 43.9 KW UNIT - METRIC

| Air On Evap. Coil | | Temperature of Air on Condenser Coil 29°C | | | | | | | | | Temperature of Air on Condenser Coil 35°C | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $m^3/s$ | WB (°C) | Tot. Cap.[1] (kW) | Tot. Input[2] (kW) | Sensible Capacity (kW)[1] Return Dry Bulb (°C) 30 | 28 | 27 | 25 | 23 | 22 | 20 | Tot. Cap.[1] (kW) | Tot. Input[2] (kW) | Sensible Capacity (kW)[1] Return Dry Bulb (°C) 30 | 28 | 27 | 25 | 23 | 22 | 20 |
| 1.77 | 22 | 44 | 11.8 | 26 | 23 | 20 | 17 | 14 | - | - | 42 | 13.0 | 26 | 23 | 20 | 16 | 13 | - | - |
| | 19 | 41 | 11.5 | 34 | 31 | 27 | 24 | 21 | 18 | 15 | 39 | 12.6 | 33 | 30 | 26 | 23 | 20 | 17 | 14 |
| | 17 | 36 | 11.2 | 36 | 34 | 31 | 28 | 25 | 21 | 18 | 34 | 12.4 | 34 | 33 | 30 | 27 | 24 | 20 | 17 |
| | 14 | 35 | 11.3 | 35 | 34 | 31 | 28 | 25 | 21 | 18 | 33 | 12.5 | 33 | 33 | 29 | 26 | 23 | 20 | 17 |
| 2.06 | 22 | 46 | 11.8 | 29 | 26 | 22 | 18 | 15 | - | - | 43 | 13.0 | 29 | 25 | 21 | 18 | 14 | - | - |
| | 19 | 42 | 11.5 | 37 | 34 | 30 | 26 | 23 | 19 | 15 | 40 | 12.5 | 36 | 33 | 29 | 25 | 21 | 18 | 14 |
| | 17 | 37 | 11.2 | 37 | 36 | 34 | 30 | 26 | 23 | 19 | 35 | 12.4 | 35 | 35 | 33 | 29 | 25 | 22 | 18 |
| | 14 | 36 | 11.3 | 36 | 36 | 34 | 30 | 26 | 23 | 19 | 34 | 12.4 | 34 | 34 | 32 | 28 | 25 | 21 | 17 |
| 2.36 | 22 | 47 | 11.8 | 33 | 28 | 24 | 20 | 15 | - | - | 45 | 12.9 | 32 | 28 | 23 | 19 | 15 | - | - |
| | 19 | 44 | 11.5 | 41 | 37 | 33 | 28 | 24 | 20 | 15 | 42 | 12.5 | 40 | 36 | 31 | 27 | 23 | 19 | 14 |
| | 17 | 39 | 11.3 | 39 | 39 | 37 | 32 | 28 | 24 | 20 | 37 | 12.3 | 37 | 37 | 35 | 31 | 27 | 23 | 18 |
| | 14 | 37 | 11.3 | 37 | 37 | 37 | 32 | 28 | 24 | 20 | 35 | 12.4 | 35 | 35 | 35 | 31 | 26 | 22 | 18 |
| 2.65 | 22 | 48 | 11.9 | 39 | 34 | 29 | 24 | 19 | - | - | 46 | 13.1 | 38 | 33 | 28 | 23 | 18 | - | - |
| | 19 | 45 | 11.6 | 44 | 41 | 39 | 34 | 30 | 25 | 20 | 43 | 12.6 | 42 | 40 | 38 | 33 | 28 | 23 | 18 |
| | 17 | 39 | 11.3 | 39 | 39 | 39 | 34 | 29 | 24 | 19 | 38 | 12.5 | 38 | 38 | 37 | 32 | 27 | 22 | 18 |
| | 14 | 38 | 11.4 | 38 | 38 | 38 | 33 | 28 | 23 | 18 | 36 | 12.5 | 36 | 36 | 36 | 31 | 26 | 21 | 16 |
| 2.95 | 22 | 49 | 11.9 | 45 | 39 | 34 | 28 | 23 | - | - | 47 | 13.2 | 44 | 38 | 33 | 27 | 22 | - | - |
| | 19 | 46 | 11.6 | 46 | 46 | 46 | 41 | 35 | 30 | 24 | 44 | 12.8 | 44 | 44 | 44 | 38 | 33 | 27 | 22 |
| | 17 | 40 | 11.4 | 40 | 40 | 40 | 35 | 30 | 24 | 19 | 39 | 12.6 | 39 | 39 | 39 | 33 | 28 | 22 | 17 |
| | 14 | 39 | 11.4 | 39 | 39 | 39 | 33 | 28 | 22 | 17 | 37 | 12.7 | 37 | 37 | 37 | 31 | 26 | 21 | 15 |
| | | Temperature of Air on Condenser Coil 41°C | | | | | | | | | Temperature of Air on Condenser Coil 46°C | | | | | | | | |
| 1.77 | 22 | 39 | 14.3 | 25 | 22 | 19 | 16 | 13 | - | - | 37 | 15.6 | 24 | 21 | 18 | 15 | 12 | - | - |
| | 19 | 36 | 13.8 | 32 | 29 | 25 | 22 | 19 | 16 | 13 | 34 | 15.1 | 31 | 28 | 24 | 21 | 18 | 15 | 12 |
| | 17 | 32 | 13.6 | 32 | 32 | 28 | 25 | 22 | 19 | 16 | 30 | 14.9 | 30 | 30 | 27 | 24 | 21 | 18 | 14 |
| | 14 | 31 | 13.8 | 31 | 31 | 28 | 25 | 21 | 18 | 15 | 29 | 15.0 | 29 | 29 | 26 | 23 | 20 | 17 | 13 |
| 2.06 | 22 | 41 | 14.3 | 28 | 24 | 21 | 17 | 13 | - | - | 38 | 15.6 | 27 | 23 | 20 | 16 | 12 | - | - |
| | 19 | 38 | 13.8 | 35 | 32 | 28 | 24 | 20 | 17 | 13 | 35 | 15.1 | 34 | 30 | 27 | 23 | 19 | 16 | 12 |
| | 17 | 33 | 13.6 | 33 | 33 | 31 | 27 | 24 | 20 | 16 | 31 | 14.9 | 31 | 31 | 30 | 26 | 22 | 18 | 15 |
| | 14 | 32 | 13.7 | 32 | 32 | 30 | 27 | 23 | 19 | 15 | 30 | 15.0 | 30 | 30 | 28 | 25 | 21 | 17 | 14 |
| 2.36 | 22 | 42 | 14.3 | 31 | 27 | 22 | 18 | 14 | - | - | 40 | 15.6 | 30 | 26 | 21 | 17 | 13 | - | - |
| | 19 | 39 | 13.8 | 38 | 35 | 30 | 26 | 22 | 17 | 13 | 36 | 15.1 | 36 | 33 | 29 | 25 | 21 | 16 | 12 |
| | 17 | 34 | 13.6 | 34 | 34 | 34 | 30 | 25 | 21 | 17 | 32 | 14.9 | 32 | 32 | 32 | 28 | 24 | 19 | 15 |
| | 14 | 33 | 13.7 | 33 | 33 | 33 | 29 | 24 | 20 | 16 | 31 | 15.0 | 31 | 31 | 31 | 27 | 22 | 18 | 14 |
| 2.65 | 22 | 43 | 14.4 | 36 | 31 | 26 | 21 | 16 | - | - | 40 | 15.7 | 33 | 29 | 24 | 19 | 14 | - | - |
| | 19 | 40 | 13.9 | 40 | 38 | 35 | 30 | 25 | 20 | 15 | 37 | 15.2 | 37 | 36 | 32 | 27 | 22 | 18 | 13 |
| | 17 | 35 | 13.7 | 35 | 35 | 35 | 30 | 25 | 20 | 15 | 33 | 15.0 | 33 | 33 | 33 | 28 | 23 | 18 | 13 |
| | 14 | 34 | 13.8 | 34 | 34 | 34 | 29 | 24 | 19 | 14 | 32 | 15.1 | 32 | 32 | 32 | 27 | 22 | 17 | 12 |
| 2.95 | 22 | 44 | 14.5 | 40 | 35 | 29 | 24 | 18 | - | - | 41 | 15.8 | 37 | 32 | 26 | 21 | 15 | - | - |
| | 19 | 41 | 14.0 | 41 | 41 | 40 | 34 | 29 | 23 | 18 | 38 | 15.3 | 38 | 38 | 35 | 30 | 24 | 19 | 13 |
| | 17 | 36 | 13.8 | 36 | 36 | 36 | 31 | 25 | 20 | 14 | 34 | 15.0 | 34 | 34 | 34 | 28 | 23 | 17 | 12 |
| | 14 | 35 | 13.9 | 35 | 35 | 35 | 29 | 24 | 18 | 13 | 32 | 15.2 | 32 | 32 | 32 | 27 | 21 | 16 | 10 |
| | | Temperature of Air on Condenser Coil 52°C | | | | | | | | | | | | | | | | | |
| 1.77 | 22 | 35 | 16.9 | 24 | 20 | 17 | 14 | 11 | - | - | | | | | | | | | |
| | 19 | 32 | 16.4 | 30 | 27 | 23 | 20 | 17 | 14 | 11 | | | | | | | | | |
| | 17 | 28 | 16.1 | 28 | 28 | 26 | 22 | 19 | 16 | 13 | | | | | | | | | |
| | 14 | 27 | 16.3 | 27 | 27 | 24 | 21 | 18 | 15 | 12 | | | | | | | | | |
| 2.06 | 22 | 36 | 16.9 | 26 | 23 | 19 | 15 | 11 | - | - | | | | | | | | | |
| | 19 | 33 | 16.4 | 32 | 29 | 26 | 22 | 18 | 15 | 11 | | | | | | | | | |
| | 17 | 29 | 16.1 | 29 | 29 | 28 | 24 | 21 | 17 | 13 | | | | | | | | | |
| | 14 | 28 | 16.3 | 28 | 28 | 27 | 23 | 19 | 16 | 12 | | | | | | | | | |
| 2.36 | 22 | 37 | 16.9 | 29 | 25 | 21 | 16 | 12 | - | - | | | | | | | | | |
| | 19 | 34 | 16.4 | 34 | 32 | 28 | 24 | 19 | 15 | 11 | | | | | | | | | |
| | 17 | 30 | 16.1 | 30 | 30 | 30 | 26 | 22 | 18 | 13 | | | | | | | | | |
| | 14 | 29 | 16.3 | 29 | 29 | 29 | 25 | 20 | 16 | 12 | | | | | | | | | |
| 2.65 | 22 | 37 | 17.0 | 31 | 27 | 22 | 17 | 12 | - | - | | | | | | | | | |
| | 19 | 34 | 16.5 | 34 | 34 | 29 | 25 | 20 | 15 | 10 | | | | | | | | | |
| | 17 | 31 | 16.2 | 31 | 31 | 31 | 26 | 21 | 16 | 11 | | | | | | | | | |
| | 14 | 29 | 16.4 | 29 | 29 | 29 | 25 | 20 | 15 | 10 | | | | | | | | | |
| 2.95 | 22 | 38 | 17.1 | 34 | 28 | 23 | 17 | 12 | - | - | | | | | | | | | |
| | 19 | 35 | 16.5 | 35 | 35 | 31 | 26 | 20 | 15 | 9 | | | | | | | | | |
| | 17 | 31 | 16.3 | 31 | 31 | 31 | 26 | 20 | 15 | 9 | | | | | | | | | |
| | 14 | 30 | 16.5 | 30 | 30 | 30 | 24 | 19 | 14 | 8 | | | | | | | | | |

1 These capacities are gross ratings. For net capacity, deduct air blower motor, MBh = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.

2 These ratings include condenser fan motors and the compressor motors but not the supply air blower motor.

## TABLE 10: ELECTRICAL DATA 7-1/2 TON

| Voltage[1] | Compressors | | OD Fan Motors | Supply Blower Motor FLA | | Pwr Exh Motor | Electric Heater Model No. | Actual kW | Heater Amps | Min. Circuit Ampacity (Amps) | | MCA w/Power Exhaust (Amps) | | Max Fuse[2] Size (Amps) | | Max Fuse Size w/Power Exhaust (Amps) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | RLA ea. | LRA ea. | FLA ea. | 1.5 HP (1.1 kW) | 2 HP (1.5 kW) | FLA | | | | 1.5 HP (1.1 kW) | 2 HP (1.5 kW) | 1.5 HP (1.1 kW) | 2 HP (1.5 kW) | 1.5 HP (1.1 kW) | 2 HP (1.5 kW) | 1.5 HP (1.1 kW) | 2 HP (1.5 kW) |
| 380 | 8.3 | 62 | 1.1 | 4.3 | 5.2 | 2.2 | None | - | - | 25.2 | 26.1 | 27.4 | 28.3 | 30 | 30 | 35 | 35 |
| | | | | | | | 2TP04520950 | 5.6 | 8.5 | 25.2 | 26.1 | 27.4 | 28.3 | 30 | 30 | 35 | 35 |
| | | | | | | | 2TP04521850 | 11.3 | 17.2 | 26.8 | 28.0 | 29.6 | 30.7 | 30 | 30 | 35 | 35 |
| | | | | | | | 2TP04522450 | 15.0 | 22.8 | 33.9 | 35.0 | 36.6 | 37.7 | 35 | 35 | 40 | 40 |
| | | | | | | | 2TP04523650 | 21.3 | 32.4 | 45.8 | 47.0 | 48.6 | 49.7 | 50 | 50 | 50 | 50 |
| 415 | 8.3 | 62 | 1.1 | 4.3 | 5.2 | 2.2 | None | - | - | 25.2 | 26.1 | 27.4 | 28.3 | 30 | 30 | 35 | 35 |
| | | | | | | | 2TP04520950 | 6.7 | 9.3 | 25.2 | 26.1 | 27.4 | 28.3 | 30 | 30 | 35 | 35 |
| | | | | | | | 2TP04521850 | 13.5 | 18.8 | 28.9 | 30.0 | 31.6 | 32.7 | 30 | 30 | 35 | 35 |
| | | | | | | | 2TP04522450 | 17.9 | 24.9 | 36.5 | 37.6 | 39.3 | 40.4 | 40 | 40 | 40 | 40 |
| | | | | | | | 2TP04523650 | 25.4 | 35.3 | 49.5 | 50.7 | 52.3 | 53.4 | 50 | 60 | 60 | 60 |

1. Unit voltage limitations: minimum utilization 342 volts, maximum utilization 457 volts.
2. Maximum HACR breaker of the same amp size is acceptable.

## TABLE 11: ELECTRICAL DATA 10 TON

| Voltage[1] | Compressors | | OD Fan Motors | Supply Blower Motor FLA | | Pwr Exh Motor | Electric Heater Model No. | Actual kW | Heater Amps | Min. Circuit Ampacity (Amps) | | MCA w/Power Exhaust (Amps) | | Max Fuse[2] Size (Amps) | | Max Fuse Size w/Power Exhaust (Amps) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | RLA ea. | LRA ea. | FLA ea. | 2 HP (1.5 kW) | 4 HP (3 kW) | FLA | | | | 2 HP (1.5 kW) | 4 HP (3 kW) | 2 HP (1.5 kW) | 4 HP (3 kW) | 2 HP (1.5 kW) | 4 HP (3 kW) | 2 HP (1.5 kW) | 4 HP (3 kW) |
| 380 | 9.6 | 79 | 1.1 | 5.2 | 7.5 | 2.2 | None | - | - | 29.0 | 31.3 | 31.2 | 33.5 | 35 | 40 | 40 | 40 |
| | | | | | | | 2TP04521850 | 11.3 | 17.2 | 29.0 | 31.3 | 31.2 | 33.5 | 35 | 40 | 40 | 40 |
| | | | | | | | 2TP04522450 | 15.0 | 22.8 | 35.0 | 37.9 | 37.7 | 40.6 | 35 | 40 | 40 | 45 |
| | | | | | | | 2TP04523650 | 21.3 | 32.4 | 47.0 | 49.8 | 49.7 | 52.6 | 50 | 50 | 50 | 60 |
| | | | | | | | 2TP04525450 | 33.8 | 51.4 | 70.7 | 73.6 | 73.4 | 76.3 | 80 | 80 | 80 | 80 |
| 415 | 9.6 | 79 | 1.1 | 5.2 | 7.5 | 2.2 | None | - | - | 29.0 | 31.3 | 31.2 | 33.5 | 35 | 40 | 40 | 40 |
| | | | | | | | 2TP04521850 | 13.5 | 18.8 | 30.0 | 32.9 | 32.7 | 35.6 | 35 | 40 | 40 | 40 |
| | | | | | | | 2TP04522450 | 17.9 | 24.9 | 37.6 | 40.5 | 40.4 | 43.3 | 40 | 45 | 45 | 45 |
| | | | | | | | 2TP04523650 | 25.4 | 35.3 | 50.7 | 53.5 | 53.4 | 56.3 | 60 | 60 | 60 | 60 |
| | | | | | | | 2TP04525450 | 40.4 | 56.2 | 76.8 | 79.6 | 79.5 | 82.4 | 80 | 80 | 80 | 90 |

1. Unit voltage limitations: minimum utilization 342 volts, maximum utilization 457 volts.
2. Maximum HACR breaker of the same amp size is acceptable.

## TABLE 12: ELECTRICAL DATA 12-1/2 TON

| Voltage[1] | Compressors | | OD Fan Motors | Supply Air Blower Motor FLA | Pwr Exh Motor | Electric Heater Model No. | Actual kW | Heater Amps | Min. Circuit Ampacity (Amps) | MCA w/Power Exhaust (Amps) | Max Fuse[2] Size (Amps) | Max Fuse Size w/Power Exhaust (Amps) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | RLA ea. | LRA ea. | FLA ea. | 4 HP (3 kW) | FLA | | | | 4 HP (3 kW) | 4 HP (3 kW) | 4 HP (3 kW) | 4 HP (3 kW) |
| 380 | 12.0 | 91 | 1.1 | 7.5 | 2.2 | None | - | - | 36.7 | 38.9 | 45 | 50 |
| | | | | | | 2TP04521850 | 11.3 | 17.2 | 36.7 | 38.9 | 45 | 50 |
| | | | | | | 2TP04522450 | 15.0 | 22.8 | 37.9 | 40.6 | 45 | 50 |
| | | | | | | 2TP04523650 | 21.3 | 32.4 | 49.8 | 52.6 | 50 | 60 |
| | | | | | | 2TP04525450 | 33.8 | 51.4 | 73.6 | 76.3 | 80 | 80 |
| 415 | 12.0 | 101 | 1.1 | 7.5 | 2.2 | None | - | - | 36.7 | 38.9 | 45 | 50 |
| | | | | | | 2TP04521850 | 13.5 | 18.8 | 36.7 | 38.9 | 45 | 50 |
| | | | | | | 2TP04522450 | 17.9 | 24.9 | 40.5 | 43.3 | 45 | 50 |
| | | | | | | 2TP04523650 | 25.4 | 35.3 | 53.5 | 56.3 | 60 | 60 |
| | | | | | | 2TP04525450 | 40.4 | 56.2 | 79.6 | 82.4 | 80 | 90 |

1. Unit voltage limitations: minimum utilization 342 volts, maximum utilization 457 volts.
2. Maximum HACR breaker of the same amp size is acceptable.

## TABLE 13: BLOWER PERFORMANCE 7-1/2 TON STANDARD MOTOR - SIDE DUCT (IMPERIAL)

| ESP (iwg) | Turns Open | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | |
| | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP |
| **0.2** | - | - | - | - | - | - | - | - | - | - | - | - | 3698 | 1382 | 1.48 | 3527 | 1249 | 1.34 |
| **0.4** | - | - | - | - | - | - | - | - | - | 3591 | 1424 | 1.53 | 3288 | 1242 | 1.33 | 3093 | 1120 | 1.20 |
| **0.6** | - | - | - | - | - | - | 3430 | 1451 | 1.56 | 3183 | 1276 | 1.37 | 2819 | 1104 | 1.18 | 2550 | 977 | 1.05 |
| **0.8** | - | - | - | 3312 | 1490 | 1.60 | 2975 | 1287 | 1.38 | 2593 | 1101 | 1.18 | - | - | - | - | - | - |
| **1.0** | 3086 | 1480 | 1.59 | 2679 | 1269 | 1.36 | 2154 | 1059 | 1.14 | - | - | - | - | - | - | - | - | - |

## TABLE 14: BLOWER PERFORMANCE 7-1/2 TON STANDARD MOTOR - SIDE DUCT (METRIC)

| ESP (Pa) | Turns Open | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | |
| | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) |
| **50** | - | - | - | - | - | - | - | - | - | - | - | - | 1.75 | 1.38 | 1.11 | 1.66 | 1.25 | 1.00 |
| **100** | - | - | - | - | - | - | - | - | - | 1.69 | 1.42 | 1.14 | 1.55 | 1.24 | 0.99 | 1.46 | 1.12 | 0.90 |
| **149** | - | - | - | - | - | - | 1.62 | 1.45 | 1.16 | 1.50 | 1.28 | 1.02 | 1.33 | 1.10 | 0.88 | 1.20 | 0.98 | 0.78 |
| **199** | - | - | - | 1.56 | 1.49 | 1.19 | 1.40 | 1.29 | 1.03 | 1.22 | 1.10 | 0.88 | - | - | - | - | - | - |
| **249** | 1.46 | 1.48 | 1.18 | 1.26 | 1.27 | 1.02 | 1.02 | 1.06 | 0.85 | - | - | - | - | - | - | - | - | - |

## TABLE 15: BLOWER PERFORMANCE 7-1/2 TON OPTIONAL MOTOR - SIDE DUCT (IMPERIAL)

| ESP (iwg) | Turns Open | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | |
| | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP |
| **0.4** | - | - | - | - | - | - | - | - | - | - | - | - | 4052 | 1830 | 1.96 | 3715 | 1559 | 1.67 |
| **0.6** | - | - | - | - | - | - | - | - | - | 4016 | 1933 | 2.07 | 3677 | 1667 | 1.79 | 3342 | 1422 | 1.52 |
| **0.8** | - | - | - | - | - | - | 3991 | 2032 | 2.18 | 3639 | 1745 | 1.87 | 3270 | 1504 | 1.61 | 2858 | 1261 | 1.35 |
| **1.0** | - | - | - | 3953 | 2151 | 2.31 | 3576 | 1833 | 1.97 | 3191 | 1573 | 1.69 | 2702 | 1307 | 1.40 | - | - | - |
| **1.2** | 3802 | 2195 | 2.35 | 3544 | 1941 | 2.08 | 3040 | 1626 | 1.74 | 2327 | 1290 | 1.38 | - | - | - | - | - | - |
| **1.4** | 3379 | 2001 | 2.15 | 2913 | 1674 | 1.80 | - | - | - | - | - | - | - | - | - | - | - | - |
| **1.6** | 2552 | 1642 | 1.76 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

## TABLE 16: BLOWER PERFORMANCE 7-1/2 TON OPTIONAL MOTOR - SIDE DUCT (METRIC)

| ESP (Pa) | Turns Open | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | |
| | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) |
| **100** | - | - | - | - | - | - | - | - | - | - | - | - | 1.91 | 1.83 | 1.46 | 1.75 | 1.56 | 1.25 |
| **149** | - | - | - | - | - | - | - | - | - | 1.90 | 1.93 | 1.55 | 1.74 | 1.67 | 1.33 | 1.58 | 1.42 | 1.14 |
| **199** | - | - | - | - | - | - | 1.88 | 2.03 | 1.63 | 1.72 | 1.75 | 1.40 | 1.54 | 1.50 | 1.20 | 1.35 | 1.26 | 1.01 |
| **249** | - | - | - | 1.87 | 2.15 | 1.72 | 1.69 | 1.83 | 1.47 | 1.51 | 1.57 | 1.26 | 1.28 | 1.31 | 1.05 | - | - | - |
| **299** | 1.79 | 2.20 | 1.76 | 1.67 | 1.94 | 1.55 | 1.43 | 1.63 | 1.30 | 1.10 | 1.29 | 1.03 | - | - | - | - | - | - |
| **349** | 1.59 | 2.00 | 1.60 | 1.37 | 1.67 | 1.34 | - | - | - | - | - | - | - | - | - | - | - | - |
| **399** | 1.20 | 1.64 | 1.31 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

## TABLE 17: BLOWER PERFORMANCE 10 TON STANDARD MOTOR - SIDE DUCT (IMPERIAL)

| ESP (iwg) | Turns Open | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | |
| | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP |
| **0.4** | 4820 | 2675 | 2.87 | 4582 | 2362 | 2.53 | 4319 | 2080 | 2.23 | 4086 | 1842 | 1.98 | 3863 | 1648 | 1.77 | 3590 | 1430 | 1.53 |
| **0.6** | 4522 | 2496 | 2.68 | 4307 | 2215 | 2.38 | 4025 | 1941 | 2.08 | 3713 | 1678 | 1.80 | 3464 | 1499 | 1.61 | 3149 | 1291 | 1.38 |
| **0.8** | 4223 | 2332 | 2.50 | 3973 | 2062 | 2.21 | 3656 | 1783 | 1.91 | 3363 | 1550 | 1.66 | 3026 | 1350 | 1.45 | - | - | - |
| **1.0** | 3913 | 2174 | 2.33 | 3679 | 1923 | 2.06 | 3262 | 1619 | 1.74 | 2721 | 1330 | 1.43 | - | - | - | - | - | - |
| **1.2** | 3521 | 1978 | 2.12 | 3104 | 1693 | 1.82 | - | - | - | - | - | - | - | - | - | - | - | - |
| **1.4** | 2790 | 1660 | 1.78 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

## TABLE 18: BLOWER PERFORMANCE 10 TON STANDARD MOTOR - SIDE DUCT (METRIC)

| ESP (Pa) | Turns Open | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | |
| | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) |
| **100** | 2.27 | 2.68 | 2.14 | 2.16 | 2.36 | 1.89 | 2.04 | 2.08 | 1.66 | 1.93 | 1.84 | 1.47 | 1.82 | 1.65 | 1.32 | 1.69 | 1.43 | 1.14 |
| **149** | 2.13 | 2.50 | 2.00 | 2.03 | 2.22 | 1.77 | 1.90 | 1.94 | 1.55 | 1.75 | 1.68 | 1.34 | 1.63 | 1.50 | 1.20 | 1.49 | 1.29 | 1.03 |
| **199** | 1.99 | 2.33 | 1.87 | 1.88 | 2.06 | 1.65 | 1.73 | 1.78 | 1.43 | 1.59 | 1.55 | 1.24 | 1.43 | 1.35 | 1.08 | - | - | - |
| **249** | 1.85 | 2.17 | 1.74 | 1.74 | 1.92 | 1.54 | 1.54 | 1.62 | 1.30 | 1.28 | 1.33 | 1.06 | - | - | - | - | - | - |
| **299** | 1.66 | 1.98 | 1.58 | 1.46 | 1.69 | 1.35 | - | - | - | - | - | - | - | - | - | - | - | - |
| **349** | 1.32 | 1.66 | 1.33 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

## TABLE 19: BLOWER PERFORMANCE 10 TON OPTIONAL MOTOR - SIDE DUCT (IMPERIAL)

| ESP (iwg) | Turns Open | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | |
| | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP |
| **0.4** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4960 | 2495 | 2.68 |
| **0.6** | - | - | - | - | - | - | - | - | - | - | - | - | 5091 | 2745 | 2.94 | 4646 | 2314 | 2.48 |
| **0.8** | - | - | - | - | - | - | - | - | - | 5078 | 2937 | 3.15 | 4839 | 2584 | 2.77 | 4347 | 2153 | 2.31 |
| **1.0** | - | - | - | - | - | - | 5075 | 3117 | 3.34 | 4767 | 2730 | 2.93 | 4487 | 2377 | 2.55 | 3946 | 1942 | 2.08 |
| **1.2** | - | - | - | 5068 | 3308 | 3.55 | 4742 | 2881 | 3.09 | 4427 | 2513 | 2.69 | 4108 | 2159 | 2.32 | 3501 | 1723 | 1.85 |
| **1.4** | 5079 | 3595 | 3.86 | 4787 | 3105 | 3.33 | 4452 | 2713 | 2.91 | 4012 | 2259 | 2.42 | 3665 | 1926 | 2.07 | - | - | - |
| **1.6** | 4739 | 3316 | 3.56 | 4482 | 2892 | 3.10 | 4098 | 2474 | 2.65 | 3543 | 2006 | 2.15 | 3057 | 1642 | 1.76 | - | - | - |
| **1.8** | 4461 | 3111 | 3.34 | 4070 | 2621 | 2.81 | 3552 | 2160 | 2.32 | - | - | - | - | - | - | - | - | - |
| **2.0** | 3997 | 2782 | 2.98 | 3400 | 2219 | 2.38 | - | - | - | - | - | - | - | - | - | - | - | - |
| **2.2** | 3496 | 2480 | 2.66 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

## TABLE 20: BLOWER PERFORMANCE 10 TON OPTIONAL MOTOR - SIDE DUCT (METRIC)

| ESP (Pa) | Turns Open | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | |
| | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) |
| **100** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2.34 | 2.50 | 2.00 |
| **149** | - | - | - | - | - | - | - | - | - | - | - | - | 2.40 | 2.75 | 2.20 | 2.19 | 2.31 | 1.85 |
| **199** | - | - | - | - | - | - | - | - | - | 2.40 | 2.94 | 2.35 | 2.28 | 2.58 | 2.07 | 2.05 | 2.15 | 1.72 |
| **249** | - | - | - | - | - | - | 2.40 | 3.12 | 2.49 | 2.25 | 2.73 | 2.18 | 2.12 | 2.38 | 1.90 | 1.86 | 1.94 | 1.55 |
| **299** | - | - | - | 2.39 | 3.31 | 2.65 | 2.24 | 2.88 | 2.30 | 2.09 | 2.51 | 2.01 | 1.94 | 2.16 | 1.73 | 1.65 | 1.72 | 1.38 |
| **349** | 2.40 | 3.60 | 2.88 | 2.26 | 3.11 | 2.48 | 2.10 | 2.71 | 2.17 | 1.89 | 2.26 | 1.81 | 1.73 | 1.93 | 1.54 | - | - | - |
| **399** | 2.24 | 3.32 | 2.65 | 2.12 | 2.89 | 2.31 | 1.93 | 2.47 | 1.98 | 1.67 | 2.01 | 1.60 | 1.44 | 1.64 | 1.31 | - | - | - |
| **448** | 2.11 | 3.11 | 2.49 | 1.92 | 2.62 | 2.10 | 1.68 | 2.16 | 1.73 | - | - | - | - | - | - | - | - | - |
| **498** | 1.89 | 2.78 | 2.23 | 1.60 | 2.22 | 1.78 | - | - | - | - | - | - | - | - | - | - | - | - |
| **548** | 1.65 | 2.48 | 1.98 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

## TABLE 21: BLOWER PERFORMANCE 12-1/2 TON - SIDE DUCT (IMPERIAL)

| ESP (iwg) | Turns Open | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | |
| | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP |
| **0.4** | - | - | - | 6130 | 4171 | 4.47 | 5915 | 3774 | 4.05 | 5610 | 3309 | 3.55 | 5396 | 2948 | 3.16 | 4960 | 2495 | 2.68 |
| **0.6** | - | - | - | 5850 | 3932 | 4.22 | 5648 | 3565 | 3.82 | 5363 | 3136 | 3.36 | 5091 | 2745 | 2.94 | 4646 | 2314 | 2.48 |
| **0.8** | 5870 | 4273 | 4.58 | 5567 | 3715 | 3.98 | 5406 | 3380 | 3.62 | 5078 | 2937 | 3.15 | 4839 | 2584 | 2.77 | 4347 | 2153 | 2.31 |
| **1.0** | 5652 | 4087 | 4.38 | 5327 | 3518 | 3.77 | 5075 | 3117 | 3.34 | 4767 | 2730 | 2.93 | 4487 | 2377 | 2.55 | 3946 | 1942 | 2.08 |
| **1.2** | 5350 | 3820 | 4.10 | 5068 | 3308 | 3.55 | 4742 | 2881 | 3.09 | 4427 | 2513 | 2.69 | 4108 | 2159 | 2.32 | - | - | - |
| **1.4** | 5079 | 3595 | 3.86 | 4787 | 3105 | 3.33 | 4452 | 2713 | 2.91 | 4012 | 2259 | 2.42 | 3665 | 1926 | 2.07 | - | - | - |
| **1.6** | 4739 | 3316 | 3.56 | 4482 | 2892 | 3.10 | 4098 | 2474 | 2.65 | - | - | - | - | - | - | - | - | - |
| **1.8** | 4461 | 3111 | 3.34 | 4070 | 2621 | 2.81 | - | - | - | - | - | - | - | - | - | - | - | - |
| **2.0** | 3997 | 2782 | 2.98 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

## TABLE 22: BLOWER PERFORMANCE 12-1/2 TON - SIDE DUCT (METRIC)

| ESP (Pa) | Turns Open | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | |
| | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) |
| **100** | - | - | - | 2.89 | 4.17 | 3.34 | 2.79 | 3.77 | 3.02 | 2.65 | 3.31 | 2.65 | 2.55 | 2.95 | 2.36 | 2.34 | 2.50 | 2.00 |
| **149** | - | - | - | 2.76 | 3.93 | 3.15 | 2.67 | 3.57 | 2.85 | 2.53 | 3.14 | 2.51 | 2.40 | 2.75 | 2.20 | 2.19 | 2.31 | 1.85 |
| **199** | 2.77 | 4.27 | 3.42 | 2.63 | 3.72 | 2.97 | 2.55 | 3.38 | 2.70 | 2.40 | 2.94 | 2.35 | 2.28 | 2.58 | 2.07 | 2.05 | 2.15 | 1.72 |
| **249** | 2.67 | 4.09 | 3.27 | 2.51 | 3.52 | 2.81 | 2.40 | 3.12 | 2.49 | 2.25 | 2.73 | 2.18 | 2.12 | 2.38 | 1.90 | 1.86 | 1.94 | 1.55 |
| **299** | 2.52 | 3.82 | 3.06 | 2.39 | 3.31 | 2.65 | 2.24 | 2.88 | 2.30 | 2.09 | 2.51 | 2.01 | 1.94 | 2.16 | 1.73 | - | - | - |
| **349** | 2.40 | 3.60 | 2.88 | 2.26 | 3.11 | 2.48 | 2.10 | 2.71 | 2.17 | 1.89 | 2.26 | 1.81 | 1.73 | 1.93 | 1.54 | - | - | - |
| **399** | 2.24 | 3.32 | 2.65 | 2.12 | 2.89 | 2.31 | 1.93 | 2.47 | 1.98 | - | - | - | - | - | - | - | - | - |
| **448** | 2.11 | 3.11 | 2.49 | 1.92 | 2.62 | 2.10 | - | - | | - | - | - | - | - | - | - | - | - |
| **498** | 1.89 | 2.78 | 2.23 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

## TABLE 23: BLOWER PERFORMANCE 7-1/2 TON STANDARD MOTOR - DOWNSHOT (IMPERIAL)

| ESP (iwg) | Turns Open | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | |
| | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP |
| **0.2** | - | - | - | 3838 | 1772 | 1.90 | 3530 | 1491 | 1.60 | 3487 | 1385 | 1.49 | 3260 | 1234 | 1.32 | 3091 | 1119 | 1.20 |
| **0.4** | 3299 | 1485 | 1.592 | 3589 | 1670 | 1.79 | 3361 | 1425 | 1.53 | 3173 | 1275 | 1.37 | 2846 | 1111 | 1.19 | 2667 | 1006 | 1.08 |
| **0.6** | 3355 | 1506 | 1.62 | 3240 | 1535 | 1.65 | 3012 | 1301 | 1.40 | 2707 | 1131 | 1.21 | 2333 | 980 | 1.05 | 2151 | 887 | 0.95 |
| **0.8** | 3095 | 1409 | 1.51 | 2791 | 1380 | 1.48 | 2484 | 1141 | 1.22 | 2088 | 978 | 1.05 | - | - | - | - | - | - |
| **1.0** | 2519 | 1219 | 1.31 | 2241 | 1216 | 1.30 | - | - | - | - | - | - | - | - | - | - | - | - |

## TABLE 24: BLOWER PERFORMANCE 7-1/2 TON STANDARD MOTOR - DOWNSHOT (METRIC)

| ESP (Pa) | Turns Open | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | |
| | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) |
| **50** | - | - | - | 1.81 | 1.77 | 1.42 | 1.67 | 1.49 | 1.19 | 1.65 | 1.39 | 1.11 | 1.54 | 1.23 | 0.99 | 1.46 | 1.12 | 0.90 |
| **100** | 1.56 | 1.48 | 1.19 | 1.69 | 1.67 | 1.34 | 1.59 | 1.43 | 1.14 | 1.50 | 1.27 | 1.02 | 1.34 | 1.11 | 0.89 | 1.26 | 1.01 | 0.80 |
| **149** | 1.58 | 1.51 | 1.21 | 1.53 | 1.54 | 1.23 | 1.42 | 1.30 | 1.04 | 1.28 | 1.13 | 0.90 | 1.10 | 0.98 | 0.78 | 1.01 | 0.89 | 0.71 |
| **199** | 1.46 | 1.41 | 1.13 | 1.32 | 1.38 | 1.10 | 1.17 | 1.14 | 0.91 | 0.99 | 0.98 | 0.78 | - | - | - | - | - | - |
| **249** | 1.19 | 1.22 | 0.98 | 1.06 | 1.22 | 0.97 | - | - | - | - | - | - | - | - | - | - | - | - |

## TABLE 25: BLOWER PERFORMANCE 7-1/2 TON OPTIONAL MOTOR - DOWNSHOT (IMPERIAL)

| ESP (iwg) | Turns Open | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | |
| | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP |
| **0.2** | - | - | - | - | - | - | - | - | - | - | - | - | 3884 | 1754 | 1.88 | 3611 | 1520 | 1.63 |
| **0.4** | - | - | - | - | - | - | - | - | - | 3837 | 1843 | 1.98 | 3576 | 1624 | 1.74 | 3282 | 1400 | 1.50 |
| **0.6** | - | - | - | 4054 | 2201 | 2.36 | 3766 | 1926 | 2.07 | 3491 | 1691 | 1.81 | 3183 | 1473 | 1.58 | 2862 | 1263 | 1.35 |
| **0.8** | - | - | - | 3735 | 2037 | 2.18 | 3412 | 1769 | 1.90 | 3083 | 1530 | 1.64 | 2707 | 1311 | 1.41 | 2352 | 1119 | 1.20 |
| **1.0** | 3626 | 2112 | 2.27 | 3362 | 1861 | 2.00 | 3014 | 1611 | 1.73 | 2614 | 1372 | 1.47 | 2146 | 1151 | 1.23 | - | - | - |
| **1.2** | 3227 | 1931 | 2.07 | 2938 | 1682 | 1.80 | 2572 | 1457 | 1.56 | 2082 | 1227 | 1.32 | - | - | - | - | - | - |
| **1.4** | 2778 | 1733 | 1.86 | 2461 | 1506 | 1.61 | - | - | - | - | - | - | - | - | - | - | - | - |
| **1.6** | 2279 | 1522 | 1.63 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

## TABLE 26: BLOWER PERFORMANCE 7-1/2 TON OPTIONAL MOTOR - DOWNSHOT (METRIC)

| ESP (Pa) | Turns Open | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | |
| | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) |
| **50** | - | - | - | - | - | - | - | - | - | - | - | - | 1.83 | 1.75 | 1.40 | 1.70 | 1.52 | 1.22 |
| **100** | - | - | - | - | - | - | - | - | - | 1.81 | 1.84 | 1.47 | 1.69 | 1.62 | 1.30 | 1.55 | 1.40 | 1.12 |
| **149** | - | - | - | 1.91 | 2.20 | 1.76 | 1.78 | 1.93 | 1.54 | 1.65 | 1.69 | 1.35 | 1.50 | 1.47 | 1.18 | 1.35 | 1.26 | 1.01 |
| **199** | - | - | - | 1.76 | 2.04 | 1.63 | 1.61 | 1.77 | 1.42 | 1.46 | 1.53 | 1.22 | 1.28 | 1.31 | 1.05 | 1.11 | 1.12 | 0.90 |
| **249** | 1.71 | 2.11 | 1.69 | 1.59 | 1.86 | 1.49 | 1.42 | 1.61 | 1.29 | 1.23 | 1.37 | 1.10 | 1.01 | 1.15 | 0.92 | - | - | - |
| **299** | 1.52 | 1.93 | 1.54 | 1.39 | 1.68 | 1.35 | 1.21 | 1.46 | 1.17 | 0.98 | 1.23 | 0.98 | - | - | - | - | - | - |
| **349** | 1.31 | 1.73 | 1.39 | 1.16 | 1.51 | 1.20 | - | - | - | - | - | - | - | - | - | - | - | - |
| **399** | 1.08 | 1.52 | 1.22 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

## TABLE 27: BLOWER PERFORMANCE 10 TON STANDARD MOTOR - DOWNSHOT (IMPERIAL)

| ESP (iwg) | Turns Open | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | |
| | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP |
| **0.2** | 4543 | 2511 | 2.69 | 4362 | 2250 | 2.41 | 4139 | 1996 | 2.14 | 3911 | 1766 | 1.89 | 3719 | 1594 | 1.71 | 3518 | 1407 | 1.51 |
| **0.4** | 4311 | 2381 | 2.55 | 4115 | 2127 | 2.28 | 3862 | 1871 | 2.01 | 3611 | 1644 | 1.76 | 3386 | 1471 | 1.58 | 3153 | 1293 | 1.39 |
| **0.6** | 4032 | 2232 | 2.39 | 3804 | 1982 | 2.13 | 3508 | 1720 | 1.84 | 3246 | 1506 | 1.61 | 2971 | 1332 | 1.43 | - | - | - |
| **0.8** | 3706 | 2068 | 2.22 | 3428 | 1818 | 1.95 | 3078 | 1548 | 1.66 | - | - | - | - | - | - | - | - | - |
| **1.0** | 3333 | 1892 | 2.03 | 2989 | 1644 | 1.76 | - | - | - | - | - | - | - | - | - | - | - | - |
| **1.2** | 2914 | 1711 | 1.83 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

## TABLE 28: BLOWER PERFORMANCE 10 TON STANDARD MOTOR - DOWNSHOT (METRIC)

| ESP (Pa) | Turns Open | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | |
| | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) |
| **50** | 2.14 | 2.51 | 2.01 | 2.06 | 2.25 | 1.80 | 1.95 | 2.00 | 1.60 | 1.85 | 1.77 | 1.41 | 1.75 | 1.59 | 1.27 | 1.66 | 1.41 | 1.13 |
| **100** | 2.03 | 2.38 | 1.91 | 1.94 | 2.13 | 1.70 | 1.82 | 1.87 | 1.50 | 1.70 | 1.64 | 1.31 | 1.60 | 1.47 | 1.18 | 1.49 | 1.29 | 1.03 |
| **149** | 1.90 | 2.23 | 1.79 | 1.80 | 1.98 | 1.59 | 1.66 | 1.72 | 1.38 | 1.53 | 1.51 | 1.20 | 1.40 | 1.33 | 1.07 | - | - | - |
| **199** | 1.75 | 2.07 | 1.65 | 1.62 | 1.82 | 1.45 | 1.45 | 1.55 | 1.24 | - | - | - | - | - | - | - | - | - |
| **249** | 1.57 | 1.89 | 1.51 | 1.41 | 1.64 | 1.32 | - | - | - | - | - | - | - | - | - | - | - | - |
| **299** | 1.38 | 1.71 | 1.37 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

## TABLE 29: BLOWER PERFORMANCE 10 TON OPTIONAL MOTOR - DOWNSHOT (IMPERIAL)

| ESP (iwg) | Turns Open | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | |
| | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP |
| **0.2** | - | - | - | - | - | - | - | - | - | - | - | - | 4966 | 2666 | 2.86 | 4605 | 2290 | 2.46 |
| **0.4** | - | - | - | - | - | - | - | - | - | 4919 | 2473 | 2.65 | 4721 | 2515 | 2.70 | 4344 | 2145 | 2.30 |
| **0.6** | - | - | - | - | - | - | 4929 | 3022 | 3.24 | 4665 | 2324 | 2.49 | 4450 | 2353 | 2.52 | 4048 | 1991 | 2.13 |
| **0.8** | - | - | - | 4908 | 3197 | 3.43 | 4668 | 2841 | 3.05 | 4391 | 2171 | 2.33 | 4151 | 2183 | 2.34 | 3717 | 1829 | 1.96 |
| **1.0** | 4915 | 3456 | 3.71 | 4651 | 3013 | 3.23 | 4388 | 2656 | 2.85 | 4096 | 2015 | 2.16 | 3825 | 2008 | 2.15 | 3352 | 1664 | 1.78 |
| **1.2** | 4653 | 3253 | 3.49 | 4377 | 2823 | 3.03 | 4089 | 2467 | 2.65 | 3779 | 1858 | 1.99 | 3471 | 1830 | 1.96 | 2951 | 1499 | 1.61 |
| **1.4** | 4372 | 3046 | 3.27 | 4087 | 2631 | 2.82 | 3771 | 2277 | 2.44 | 3442 | 1703 | 1.83 | 3090 | 1652 | 1.77 | - | - | - |
| **1.6** | 4070 | 2837 | 3.04 | 3780 | 2437 | 2.61 | 3434 | 2089 | 2.24 | 3084 | 1552 | 1.66 | - | - | - | - | - | - |
| **1.8** | 3748 | 2629 | 2.82 | 3455 | 2243 | 2.41 | 3078 | 1904 | 2.04 | - | - | - | - | - | - | - | - | - |
| **2.0** | 3406 | 2425 | 2.60 | 3114 | 2051 | 2.20 | - | - | - | - | - | - | - | - | - | - | - | - |
| **2.2** | 3044 | 2228 | 2.39 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

## TABLE 30: BLOWER PERFORMANCE 10 TON OPTIONAL MOTOR - DOWNSHOT (METRIC)

| ESP (Pa) | Turns Open | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | |
| | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) |
| **50** | - | - | - | - | - | - | - | - | - | - | - | - | 2.34 | 2.67 | 2.13 | 2.17 | 2.29 | 1.83 |
| **100** | - | - | - | - | - | - | - | - | - | 2.32 | 2.47 | 1.98 | 2.23 | 2.51 | 2.01 | 2.05 | 2.15 | 1.72 |
| **149** | - | - | - | - | - | - | 2.33 | 3.02 | 2.42 | 2.20 | 2.32 | 1.86 | 2.10 | 2.35 | 1.88 | 1.91 | 1.99 | 1.59 |
| **199** | - | - | - | 2.32 | 3.20 | 2.56 | 2.20 | 2.84 | 2.27 | 2.07 | 2.17 | 1.74 | 1.96 | 2.18 | 1.75 | 1.75 | 1.83 | 1.46 |
| **249** | 2.32 | 3.46 | 2.76 | 2.20 | 3.01 | 2.41 | 2.07 | 2.66 | 2.12 | 1.93 | 2.01 | 1.61 | 1.81 | 2.01 | 1.61 | 1.58 | 1.66 | 1.33 |
| **299** | 2.20 | 3.25 | 2.60 | 2.07 | 2.82 | 2.26 | 1.93 | 2.47 | 1.97 | 1.78 | 1.86 | 1.49 | 1.64 | 1.83 | 1.46 | 1.39 | 1.50 | 1.20 |
| **349** | 2.06 | 3.05 | 2.44 | 1.93 | 2.63 | 2.10 | 1.78 | 2.28 | 1.82 | 1.62 | 1.70 | 1.36 | 1.46 | 1.65 | 1.32 | - | - | - |
| **399** | 1.92 | 2.84 | 2.27 | 1.78 | 2.44 | 1.95 | 1.62 | 2.09 | 1.67 | 1.46 | 1.55 | 1.24 | - | - | - | - | - | - |
| **448** | 1.77 | 2.63 | 2.10 | 1.63 | 2.24 | 1.79 | 1.45 | 1.90 | 1.52 | - | - | - | - | - | - | - | - | - |
| **498** | 1.61 | 2.43 | 1.94 | 1.47 | 2.05 | 1.64 | - | - | - | - | - | - | - | - | - | - | - | - |
| **548** | 1.44 | 2.23 | 1.78 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

## TABLE 31: BLOWER PERFORMANCE 12-1/2 TON - DOWNSHOT (IMPERIAL)

| ESP (iwg) | Turns Open | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | |
| | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP | CFM | Watts | BHP |
| **0.4** | 5576 | 4015 | 4.32 | 5370 | 3547 | 3.80 | 5171 | 3197 | 3.43 | 5007 | 2884 | 3.09 | 4721 | 2515 | 2.70 | 4344 | 2145 | 2.30 |
| **0.6** | 5376 | 3839 | 4.12 | 5147 | 3376 | 3.62 | 4929 | 3022 | 3.24 | 4735 | 2704 | 2.90 | 4450 | 2353 | 2.52 | 4048 | 1991 | 2.13 |
| **0.8** | 5155 | 3652 | 3.92 | 4908 | 3197 | 3.43 | 4668 | 2841 | 3.05 | 4411 | 2501 | 2.68 | 4151 | 2183 | 2.34 | 3717 | 1829 | 1.96 |
| **1.0** | 4915 | 3456 | 3.71 | 4651 | 3013 | 3.23 | 4388 | 2656 | 2.85 | 4035 | 2281 | 2.45 | 3825 | 2008 | 2.15 | - | - | - |
| **1.2** | 4653 | 3253 | 3.49 | 4377 | 2823 | 3.03 | 4089 | 2467 | 2.65 | 3608 | 2051 | 2.20 | - | - | - | - | - | - |
| **1.4** | 4372 | 3046 | 3.27 | 4087 | 3621 | 2.82 | 3771 | 2277 | 2.44 | - | - | - | - | - | - | - | - | - |
| **1.6** | 4070 | 2837 | 3.04 | 3780 | 2437 | 2.61 | - | - | - | - | - | - | - | - | - | - | - | - |
| **1.8** | 3748 | 2629 | 2.82 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

## TABLE 32: BLOWER PERFORMANCE 12-1/2 TON - DOWNSHOT (METRIC)

| ESP (Pa) | Turns Open | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | |
| | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) | $m^3/s$ | In (kW) | Out (kW) |
| **100** | 2.63 | 4.01 | 3.21 | 2.53 | 3.55 | 2.84 | 2.44 | 3.20 | 2.56 | 2.36 | 2.88 | 2.31 | 2.23 | 2.51 | 2.01 | 2.05 | 2.15 | 1.72 |
| **149** | 2.54 | 3.84 | 3.07 | 2.43 | 3.38 | 2.70 | 2.33 | 3.02 | 2.42 | 2.23 | 2.70 | 2.16 | 2.10 | 2.35 | 1.88 | 1.91 | 1.99 | 1.59 |
| **199** | 2.43 | 3.65 | 2.92 | 2.32 | 3.20 | 2.56 | 2.20 | 2.84 | 2.27 | 2.08 | 2.50 | 2.00 | 1.96 | 2.18 | 1.75 | 1.75 | 1.83 | 1.46 |
| **249** | 2.32 | 3.46 | 2.76 | 2.20 | 3.01 | 2.41 | 2.07 | 2.66 | 2.12 | 1.90 | 2.28 | 1.83 | 1.81 | 2.01 | 1.61 | - | - | - |
| **299** | 2.20 | 3.25 | 2.60 | 2.07 | 2.82 | 2.26 | 1.93 | 2.47 | 1.97 | 1.70 | 2.05 | 1.64 | - | - | - | - | - | - |
| **349** | 2.06 | 3.05 | 2.44 | 1.93 | 2.63 | 2.10 | 1.78 | 2.28 | 1.82 | - | - | - | - | - | - | - | - | - |
| **399** | 1.92 | 2.84 | 2.27 | 1.78 | 2.44 | 1.95 | - | - | - | - | - | - | - | - | - | - | - | - |
| **448** | 1.77 | 2.63 | 2.10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**NOTES FOR TABLES 13 THROUGH 32:**

- "Turns Open" refers to the setting of the variable pitch motor sheave, where "0 Turns Open" is fully closed.
- Blower performance includes dry coil and 2" (51mm) throw-away filters.
- Blower performance for gas heat includes the maximum number of heat tubes available for each tonnage.
- ESP (External Static Pressure) given is that available for the supply and return air duct system. All internal resistances have been deducted from the total static pressure of the blower.

## TABLE 33: ADDITIONAL STATIC RESISTANCE (IMPERIAL)

| CFM | Cooling Only[1] | Economizer[2 3] | Electric Heat KW[2] | | | | |
|---|---|---|---|---|---|---|---|
| | | | 9 | 18 | 24 | 36 | 54 |
| 1900 | 0.06 | 0.02 | 0.05 | 0.06 | 0.07 | 0.08 | 0.10 |
| 2100 | 0.07 | 0.02 | 0.06 | 0.07 | 0.08 | 0.09 | 0.11 |
| 2300 | 0.08 | 0.02 | 0.07 | 0.08 | 0.09 | 0.10 | 0.13 |
| 2500 | 0.09 | 0.02 | 0.08 | 0.09 | 0.10 | 0.11 | 0.14 |
| 2700 | 0.11 | 0.03 | 0.09 | 0.10 | 0.12 | 0.13 | 0.16 |
| 2900 | 0.12 | 0.03 | 0.10 | 0.11 | 0.13 | 0.14 | 0.18 |
| 3100 | 0.14 | 0.03 | 0.12 | 0.13 | 0.15 | 0.16 | 0.20 |
| 3300 | 0.16 | 0.03 | 0.13 | 0.14 | 0.17 | 0.18 | 0.22 |
| 3500 | 0.18 | 0.04 | 0.15 | 0.16 | 0.19 | 0.20 | 0.24 |
| 3700 | 0.20 | 0.04 | 0.17 | 0.18 | 0.21 | 0.22 | 0.26 |
| 3900 | 0.23 | 0.04 | 0.19 | 0.20 | 0.23 | 0.24 | 0.28 |
| 4100 | 0.25 | 0.04 | 0.21 | 0.22 | 0.25 | 0.26 | 0.31 |
| 4300 | 0.28 | 0.05 | 0.23 | 0.24 | 0.28 | 0.29 | 0.34 |
| 4500 | 0.30 | 0.05 | 0.25 | 0.26 | 0.30 | 0.31 | 0.37 |
| 4700 | 0.33 | 0.05 | 0.28 | 0.29 | 0.33 | 0.34 | 0.40 |
| 4900 | 0.36 | 0.05 | 0.30 | 0.31 | 0.35 | 0.37 | 0.43 |
| 5100 | 0.39 | 0.06 | 0.33 | 0.34 | 0.38 | 0.40 | 0.46 |
| 5300 | 0.42 | 0.06 | 0.35 | 0.37 | 0.41 | 0.43 | 0.49 |
| 5500 | 0.45 | 0.06 | 0.38 | 0.40 | 0.44 | 0.46 | 0.53 |
| 5700 | 0.48 | 0.06 | 0.41 | 0.43 | 0.47 | 0.49 | 0.56 |
| 5900 | 0.52 | 0.07 | 0.44 | 0.46 | 0.50 | 0.53 | 0.59 |
| 6100 | 0.56 | 0.07 | 0.47 | 0.49 | 0.53 | 0.56 | 0.62 |
| 6300 | 0.60 | 0.07 | 0.50 | 0.53 | 0.56 | 0.59 | 0.65 |

1. Add these resistance values to the available static resistance in the respective Blower Performance Tables.
2. Deduct these resistance values from the available external static pressure shown in the respective Blower Performance Table.
3. The pressure drop through the economizer is greater for 100% outdoor air than for 100% return air. If the resistance of the return air duct system is less than 0.25 IWG, the unit will deliver less CFM during full economizer operation.

## TABLE 34: ADDITIONAL STATIC RESISTANCE (METRIC)

| $M^3S$ | Cooling Only[1] | Economizer[2 3] | Electric Heat kW[2] | | | | |
|---|---|---|---|---|---|---|---|
| | | | 9 | 18 | 24 | 36 | 54 |
| 0.89 | 14.9 | 5.0 | 12.4 | 14.9 | 17.4 | 19.9 | 24.8 |
| 0.99 | 17.4 | 5.0 | 14.9 | 17.4 | 19.9 | 22.4 | 27.3 |
| 1.08 | 19.9 | 5.0 | 17.4 | 19.9 | 22.4 | 24.8 | 32.3 |
| 1.18 | 22.4 | 5.0 | 19.9 | 22.4 | 24.8 | 27.3 | 34.8 |
| 1.27 | 27.3 | 7.5 | 22.4 | 24.8 | 29.8 | 32.3 | 39.7 |
| 1.36 | 29.8 | 7.5 | 24.8 | 27.3 | 32.3 | 34.8 | 44.7 |
| 1.46 | 34.8 | 7.5 | 29.8 | 32.3 | 37.3 | 39.7 | 49.7 |
| 1.55 | 39.7 | 7.5 | 32.3 | 34.8 | 42.2 | 44.7 | 54.6 |
| 1.65 | 44.7 | 9.9 | 37.3 | 39.7 | 47.2 | 49.7 | 59.6 |
| 1.74 | 49.7 | 9.9 | 42.2 | 44.7 | 52.2 | 49.7 | 64.6 |
| 1.83 | 57.1 | 9.9 | 47.2 | 49.7 | 57.1 | 59.6 | 69.5 |
| 1.93 | 62.1 | 9.9 | 52.2 | 54.6 | 62.1 | 64.6 | 77.0 |
| 1.02 | 69.5 | 12.4 | 57.1 | 59.6 | 69.5 | 72.0 | 84.4 |
| 2.12 | 74.5 | 12.4 | 62.1 | 64.6 | 74.5 | 77.0 | 91.9 |
| 2.21 | 82.0 | 12.4 | 69.5 | 72.0 | 82.0 | 84.4 | 99.3 |
| 2.30 | 89.4 | 12.4 | 74.5 | 77.0 | 86.9 | 91.9 | 106.8 |
| 2.40 | 96.9 | 14.9 | 82.0 | 84.4 | 94.4 | 99.3 | 114.2 |
| 2.49 | 104.3 | 14.9 | 86.9 | 91.9 | 101.8 | 106.8 | 121.7 |
| 2.59 | 111.8 | 14.9 | 94.4 | 99.3 | 109.3 | 114.2 | 131.6 |
| 2.68 | 119.2 | 14.9 | 101.8 | 106.8 | 116.7 | 121.7 | 139.1 |
| 2.77 | 129.1 | 17.4 | 109.3 | 114.2 | 124.2 | 131.6 | 146.5 |
| 2.87 | 139.1 | 17.4 | 116.7 | 121.7 | 131.6 | 139.1 | 154.0 |
| 2.96 | 149.0 | 17.4 | 124.2 | 131.6 | 139.1 | 146.5 | 161.4 |

1. Add these resistance values to the available static resistance in the respective Blower Performance Tables.
2. Deduct these resistance values from the available external static pressure shown in the respective Blower Performance Table.
3. The pressure drop through the economizer is greater for 100% outdoor air than for 100% return air. If the resistance of the return air duct system is less than 62.1 Pa, the unit will deliver less M3S during full economizer operation.

## TABLE 35: ELECTRIC HEAT MINIMUM SUPPLY AIR - IMPERIAL

| HEATER | | UNIT MODEL SIZE, NOMINAL TONS | | |
|---|---|---|---|---|
| kW | VOLTAGE | 7.5 | 10 | 12.5 |
| | | MINIMUM SUPPLY AIR CFM | | |
| 9 | 380/415 | 2250 | N/A | N/A |
| 18 | | 2250 | 3000 | 3750 |
| 24 | | 2250 | 3000 | 3750 |
| 36 | | 2250 | 3000 | 3750 |
| 54 | | N/A | 3000 | 3750 |

## TABLE 36: ELECTRIC HEAT MINIMUM SUPPLY AIR - METRIC

| HEATER | | UNIT MODEL SIZE, NOMINAL TONS | | |
|---|---|---|---|---|
| kW | VOLTAGE | 7.5 | 10 | 12.5 |
| | | MINIMUM SUPPLY AIR $M^3S$ | | |
| 9 | 380/415 | 1.06 | N/A | N/A |
| 18 | | 1.06 | 1.42 | 1.76 |
| 24 | | 1.06 | 1.42 | 1.76 |
| 36 | | 1.06 | 1.42 | 1.76 |
| 54 | | N/A | 1.42 | 1.76 |

## TABLE 37: INDOOR BLOWER SPECIFICATIONS

| MODEL | MOTOR | | | | | MOTOR SHEAVE | | | BLOWER SHEAVE | | | BELT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | HP | RPM[1] | Eff. | SF | Frame | Datum Dia. (in.) | Bore (in.) | Model | Datum Dia. (in.) | Bore (in.) | Model | |
| DM090 | 1-1/2 | 1725 | 80% | 1.15 | 56 | 3.4 - 4.4 | 7/8 | 1VM50 | 7.5 | 1 | AK79 | A55 |
| | 2 | 1725 | 80% | 1.15 | 56 | 3.4 - 4.4 | 7/8 | 1VM50 | 6.5 | 1 | AK69 | A53 |
| DM120 | 2 | 1725 | 80% | 1.15 | 56 | 3.4 - 4.4 | 7/8 | 1VM50 | 7 | 1 | AK74 | A54 |
| | 4 | 1725 | 80% | 1.15 | 184T | 4.3-5.3 | 1-1/8 | 1VP56 | 6.2 | 1 | AK66 | B55 |
| DM150 | 4 | 1725 | 87% | 1.15 | 184T | 4.3 - 5.3 | 1-1/8 | 1VP56 | 6.2 | 1 | BK72 | B55 |

1. 1425 RPM on 50 Hz.

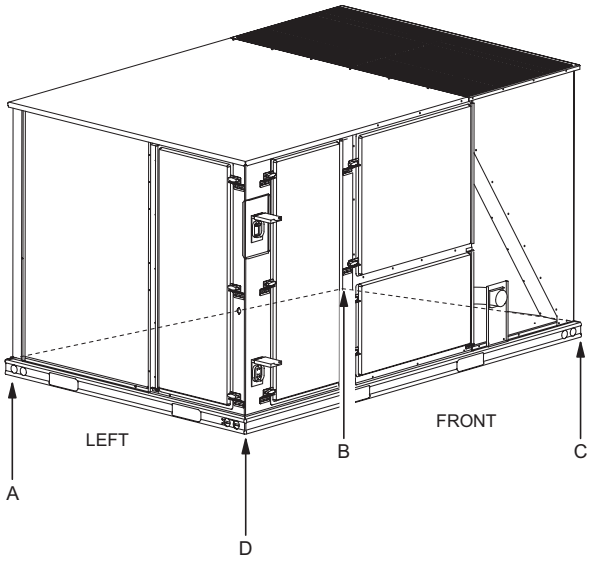



**FIGURE 2 - UNIT 4 POINT LOAD**

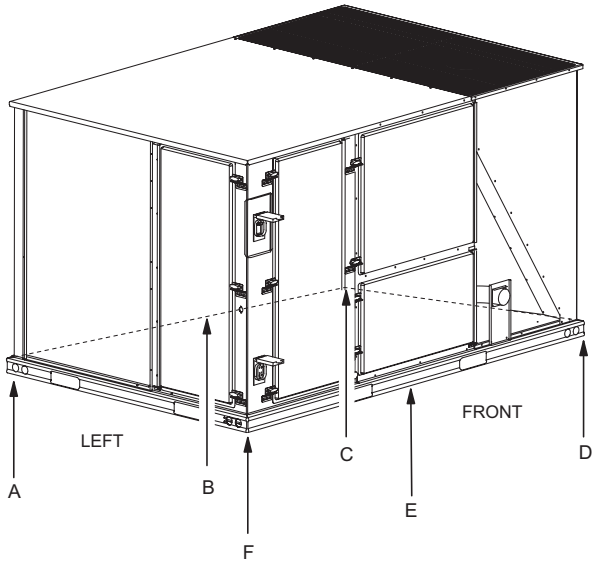



**FIGURE 4 - UNIT 6 POINT LOAD**

## TABLE 38: 4 POINT LOAD WEIGHT

| Model | Location (lbs. (kg.)) | | | |
|---|---|---|---|---|
| | A | B | C | D |
| 090 | 230 (104) | 197 (89.3) | 287 (130) | 336 (152) |
| 120 | 245 (111) | 209 (94) | 305 (138) | 357 (162) |
| 150 | 262 (118) | 224 (101) | 327 (148) | 382 (173) |

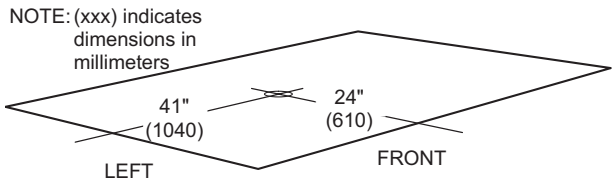



**FIGURE 3 - UNIT CENTER OF GRAVITY**

## TABLE 39: 6 POINT LOAD WEIGHT

| Model | Locations (lbs. (kg.)) | | | | | |
|---|---|---|---|---|---|---|
| | A | B | C | D | E | F |
| 090 | 158 (71.6) | 142 (64.4) | 128 (58) | 187 (84.8) | 207 (93.9 | 230 (104) |
| 120 | 168 (76.2) | 151 (68.4) | 136 (61.7) | 198 (89.8) | 219 (99.3) | 244 (110.7) |
| 150 | 180 (81.6) | 161 (73) | 145 (65.8) | 212 (96.2) | 235 (107) | 262 (118.8) |

## TABLE 40: UNIT WEIGHT

| Model | Shipping Weight lbs. (kg) | Operating Weight lbs. (kg) |
|---|---|---|
| 090 | 1082 (490.6) | 1077 (488.4) |
| 120 | 1143 (518.6) | 1138 (516.3) |
| 150 | 1202 (545.3) | 1197 (543.1) |

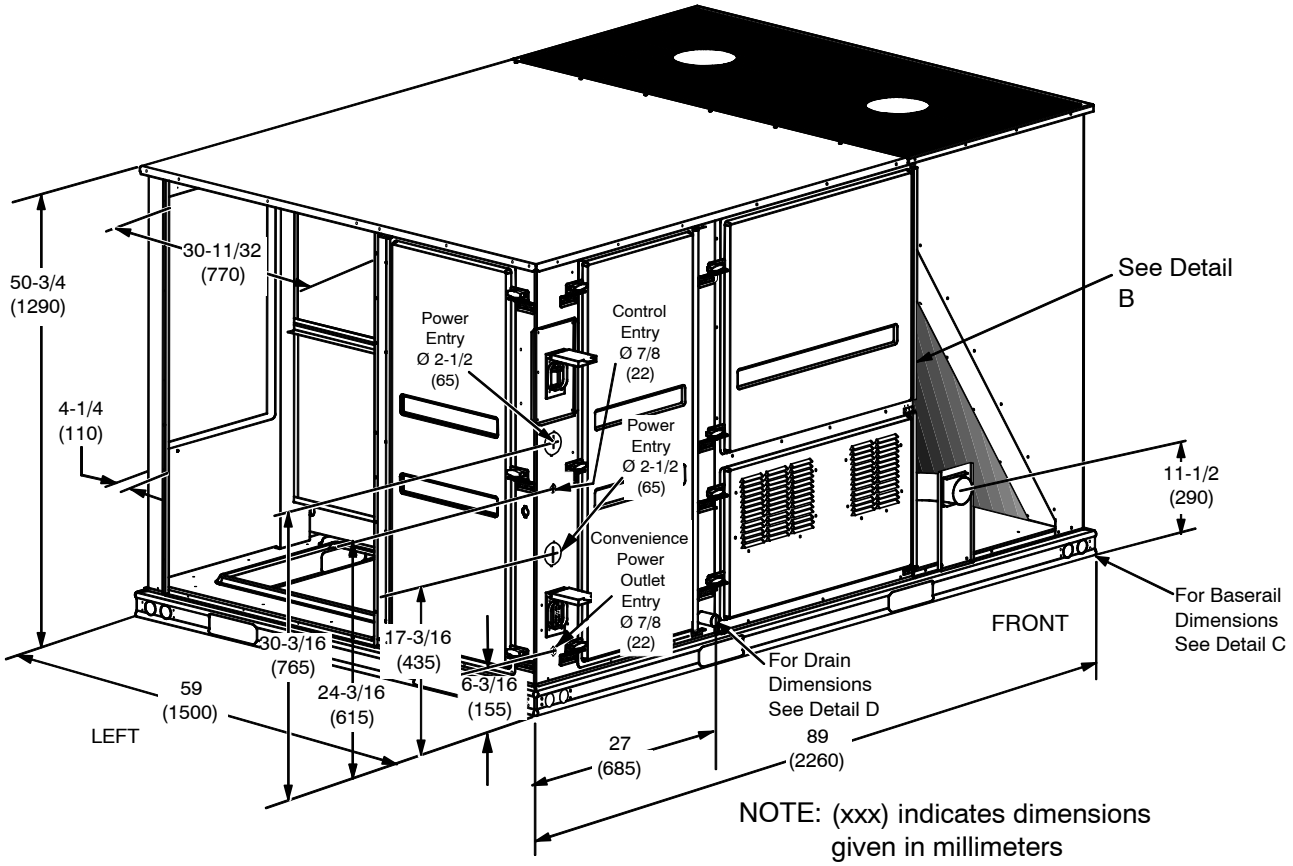
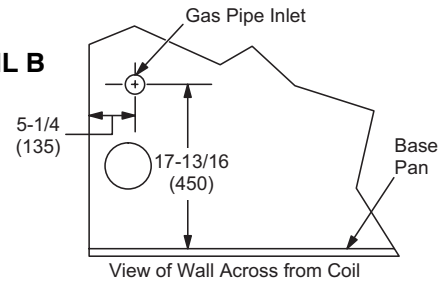
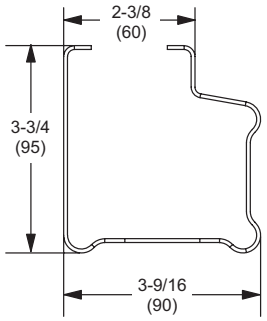



**FIGURE 5 - UNIT DIMENSIONS**

**DETAIL B**




**DETAIL C**




**DETAIL D**

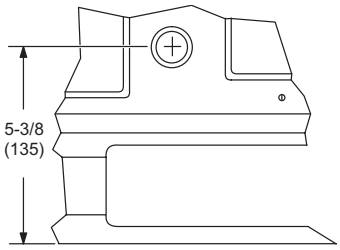



**TABLE 41: UNIT CLEARANCES [1]**

| | | | |
|---|---|---|---|
| **Top[2]** | 72(1830) | **Right** | 12(305) |
| **Front** | 36(915) | **Left** | 36(915) |
| **Rear[3]** | 36(915) | **Bottom[4]** | 0(0) |

1. In inches and millimeters, in.(mm).
2. Units must be installed outdoors. Overhanging structure or shrubs should not obstruct condenser air discharge outlet.
3. To remove the slide-out drain pan, a rear clearance of 60" (1525 mm) is required. If space is unavailable, the drain pan can be removed through the front by separating the corner wall.
4. Units may be installed on combustible floors.

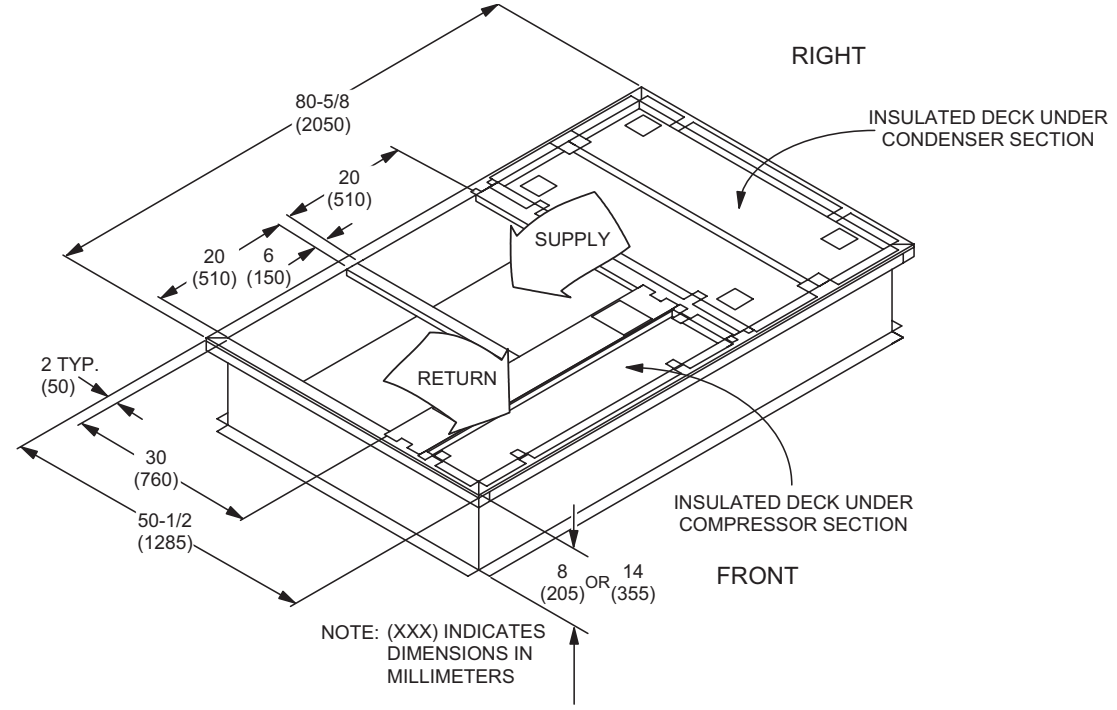



**FIGURE 6 - PREDATOR® ROOF CURB DIMENSIONS**

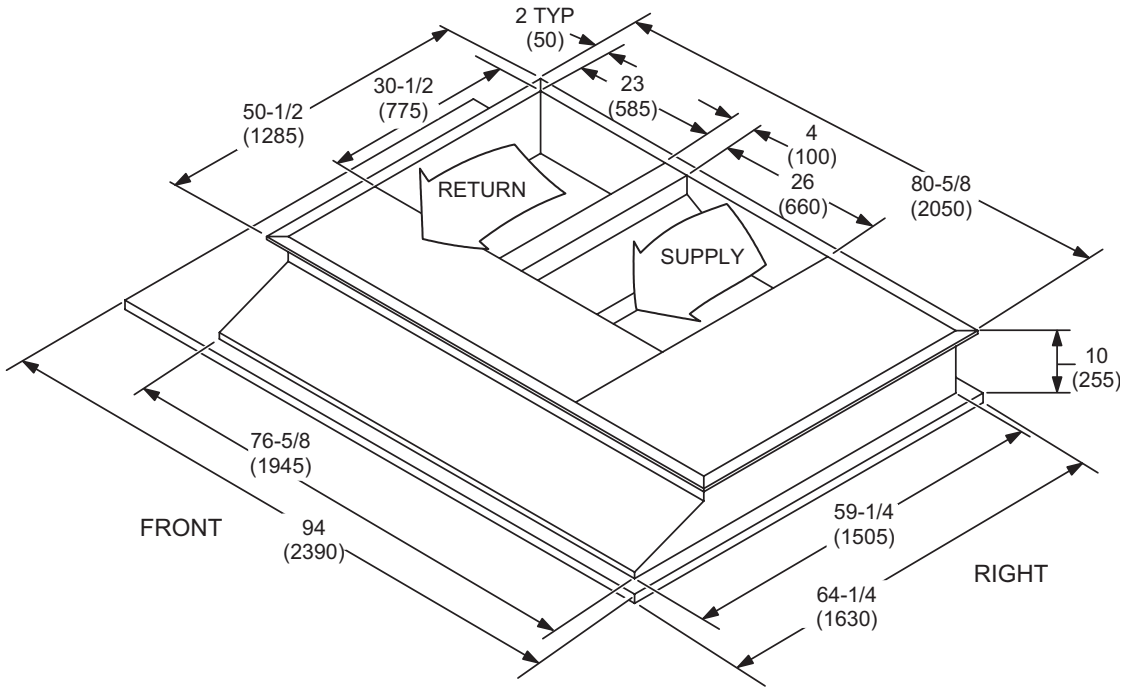



**FIGURE 7 - SUNLINE™ TO PREDATOR® TRANSITION ROOF CURB**

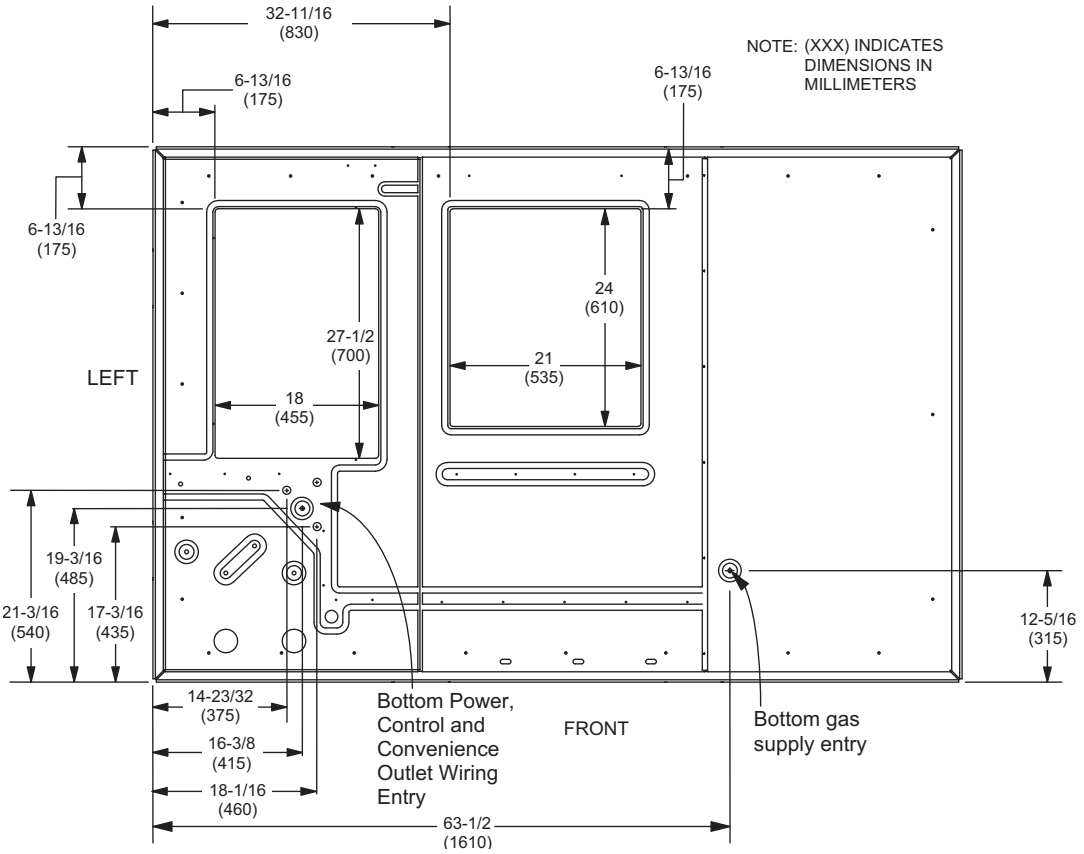



**FIGURE 8 - BOTTOM DUCT OPENINGS (FROM ABOVE)**

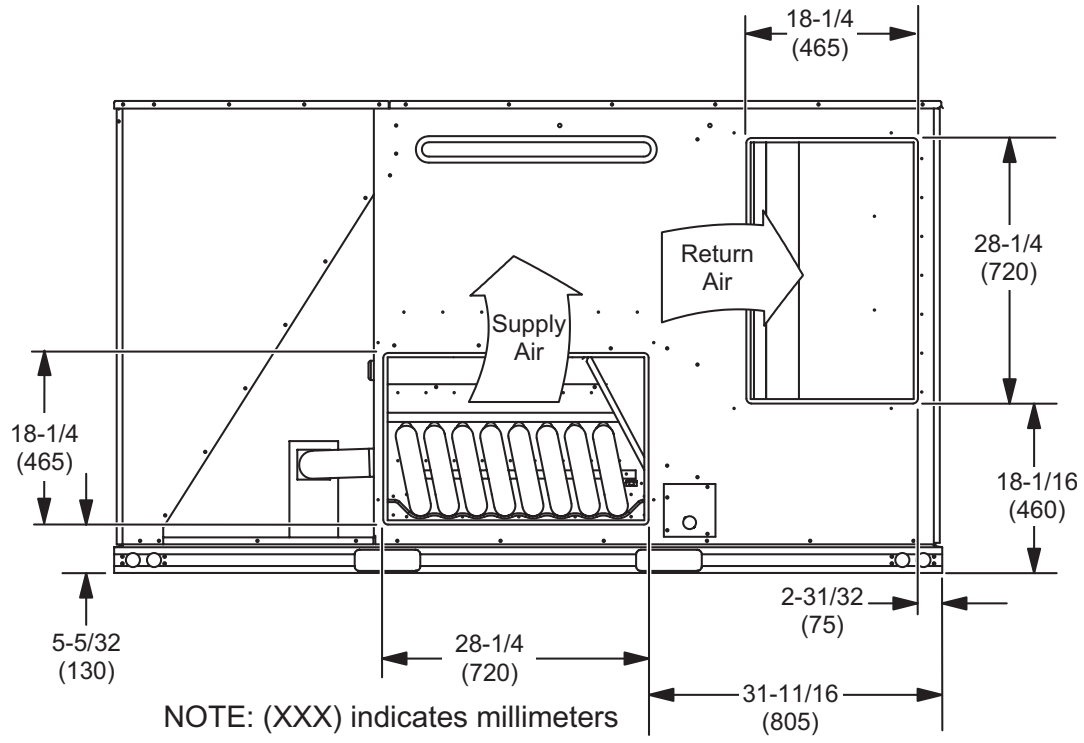



**FIGURE 9 - REAR DUCT DIMENSIONS**

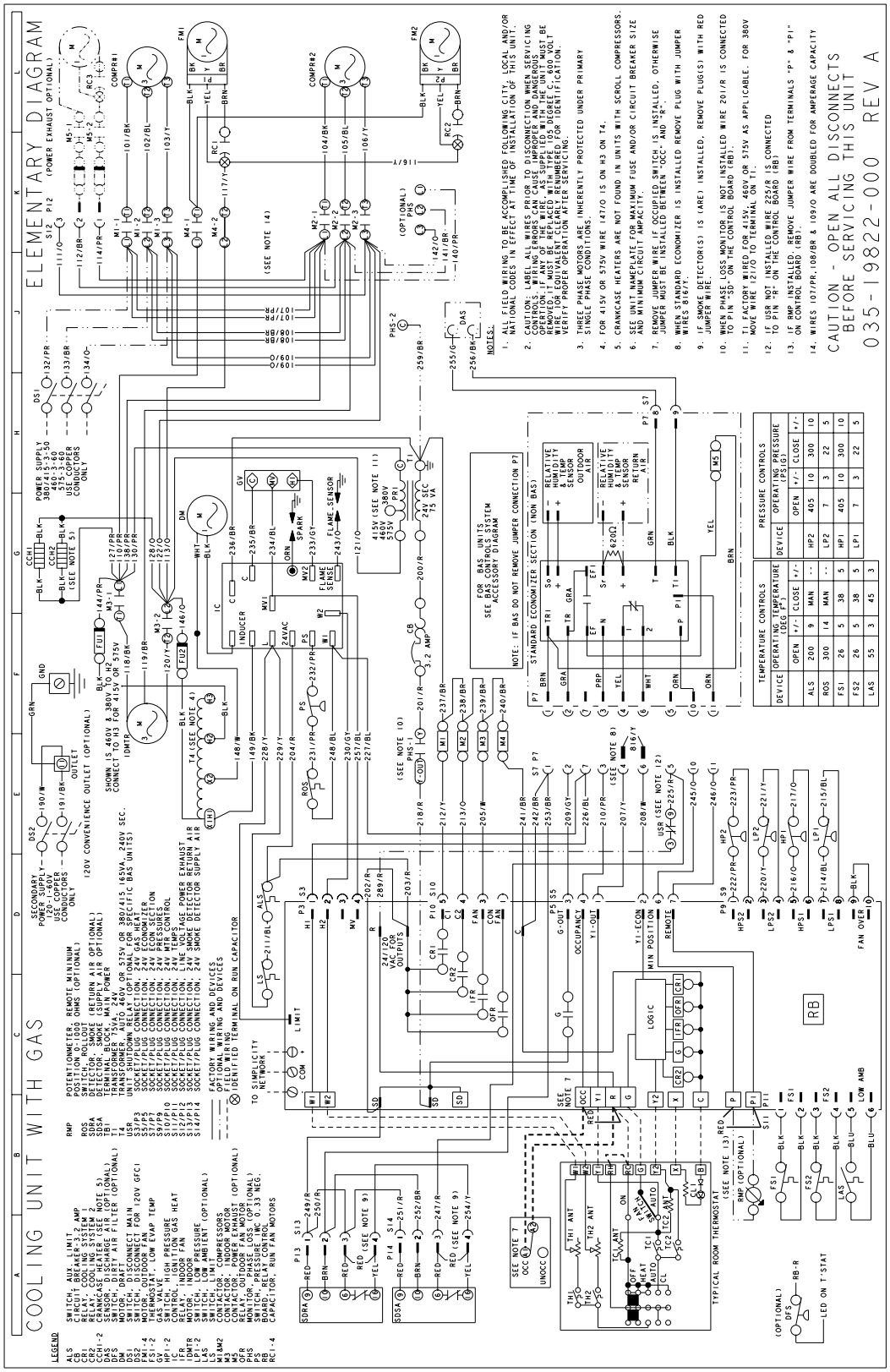

COOLING UNIT WITH GAS
ELEMENTARY DIAGRAM
CAUTION - OPEN ALL DISCONNECTS
BEFORE SERVICING THIS UNIT
035-19822-000 REV A
LEGEND
NOTES:
1. ALL FIELD WIRING TO BE ACCOMPLISHED FOLLOWING CITY, LOCAL AND/OR NATIONAL CODES IN EFFECT AT TIME OF INSTALLATION OF THIS UNIT.
2. CAUTION: LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING CONTROLS. WIRING ERRORS CAN CAUSE IMPROPER AND DANGEROUS OPERATION. VERIFY PROPER OPERATION AFTER SERVICING. IF ANY WIRE MUST BE REMOVED, IT MUST BE REPLACED WITH TYPE 105 DEGREE C, 600 VOLT WIRE (OR EQUIVALENT). CLEARLY RENUMBERED FOR IDENTIFICATION.
3. THREE PHASE MOTORS ARE INHERENTLY PROTECTED UNDER PRIMARY SINGLE PHASE CONDITIONS.
4. FOR 415V OR 575V WIRE 147/O IS ON H3 ON T4.
5. CRANKCASE HEATERS ARE NOT FOUND IN UNITS WITH SCROLL COMPRESSORS.
6. SEE UNIT NAMEPLATE FOR MAXIMUM FUSE AND/OR CIRCUIT BREAKER SIZE AND MINIMUM CIRCUIT AMPACITY.
7. REMOVE JUMPER WIRE IF OCCUPIED SWITCH IS INSTALLED. OTHERWISE JUMPER MUST BE INSTALLED BETWEEN "OCC" AND "R".
8. WHEN STANDARD ECONOMIZER IS INSTALLED REMOVE PLUG WITH JUMPER WIRES 816/Y.
9. IF SMOKE DETECTOR(S) IS (ARE) INSTALLED, REMOVE PLUG(S) WITH RED JUMPER WIRE.
10. WHEN PHASE LOSS MONITOR IS NOT INSTALLED WIRE 201/R IS CONNECTED TO PIN "SD" ON THE CONTROL BOARD (RB).
11. FOR FACTORY WIRED FOR 415V, 460V OR 575V AS APPLICABLE. FOR 380V WIRE 147/O INSTEAD OF 147/Y.
12. IF PSR NOT INSTALLED WIRE 236/BR IS CONNECTED TO PSR ON THE BOARD (RB).
13. IF RMP INSTALLED, REMOVE JUMPER WIRE FROM TERMINALS "P" & "P1" ON CONTROL BOARD (RB).
14. WIRES 107/PR, 108/BR & 109/O ARE DOUBLED FOR AMPERAGE CAPACITY
TEMPERATURE CONTROLS
PRESSURE CONTROLS
FOR BAS UNITS SEE BAS CONTROLS SYSTEM ACCESSORY DIAGRAM
NOTE: IF BAS DO NOT REMOVE JUMPER CONNECTION P7
STANDARD ECONOMIZER SECTION (NON BAS)
TYPICAL ROOM THERMOSTAT
LED ON T-STAT
UNOCC
OCC
OFF
HEAT
AUTO
COOL
ON
FAN
AUTO
RB
LOGIC
LIMIT
INDUCER
FLAME SENSOR
SPARK
FLAME SENSE
OUTDOOR AIR SENSOR
RETURN AIR
COMPR#1
COMPR#2
FM1
FM2
DAS
PHS-2
SEE NOTE 14
SEE NOTE 7
SEE NOTE 8
SEE NOTE 9
SEE NOTE 10
SEE NOTE 12
SEE NOTE 13
SHOWN IS 460V & 380V TO H2 ON T4
415V (SEE NOTE 11)
460V
575V
380V
24 VAC
45 VA
3.2 AMP
(OPTIONAL)
DFS
RMP (OPTIONAL)
FACTORY WIRING AND DEVICES
FIELD WIRING
IDENTIFIED TERMINAL OR RUN CAPACITOR
TO SIMPLICITY NETWORK
120V CONVENIENCE OUTLET (OPTIONAL)
SECONDARY POWER SUPPLY 120-160V USE COPPER CONDUCTORS ONLY
POWER SUPPLY 380/415/460 575 USE COPPER CONDUCTORS ONLY
(POWER EXHAUST OPTIONAL)

**FIGURE 10 -COOLING UNIT WITH GAS HEAT WIRING DIAGRAM**

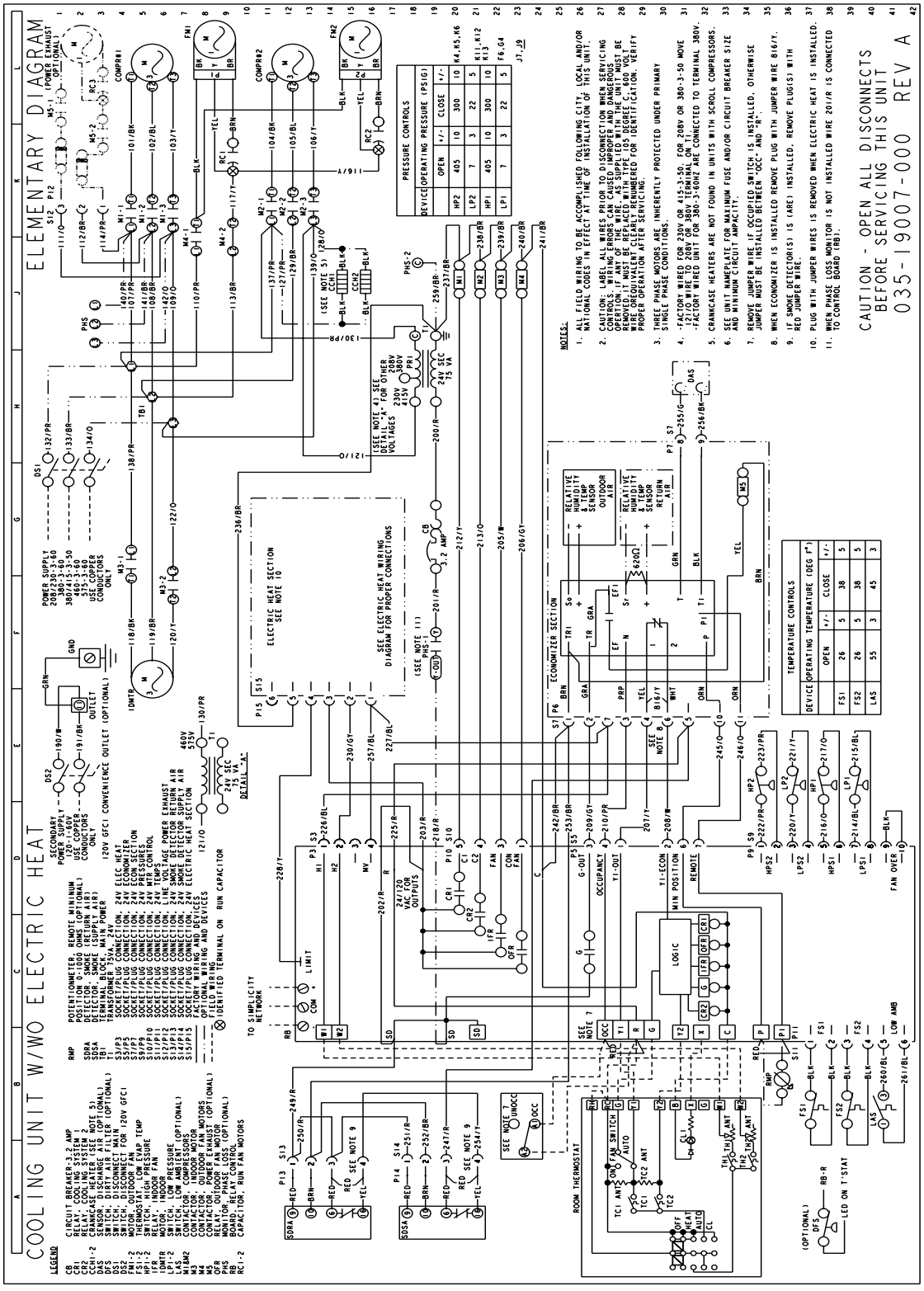



**FIGURE 11 -COOLING UNIT WITH/WITHOUT ELECTRIC HEAT WIRING DIAGRAM**

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